

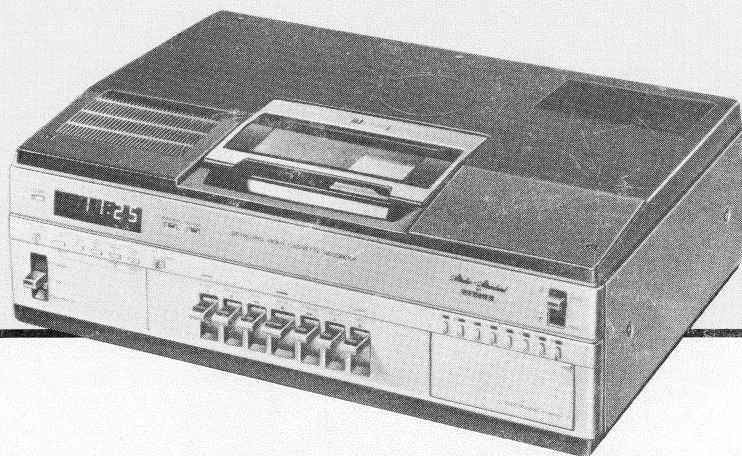
SERVICE MANUAL



# FISHER

# VBS-7000

COLOUR VIDEO Cassette Recorder



*Studio-Standard* BY  **FISHER**

5. PARTS LIST

PRODUCT SAFETY NOTICE

The components designated by a symbol (  $\Delta$  ) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage and voltage ratings shown.

ACCESSORIES

PACKING MATERIALS

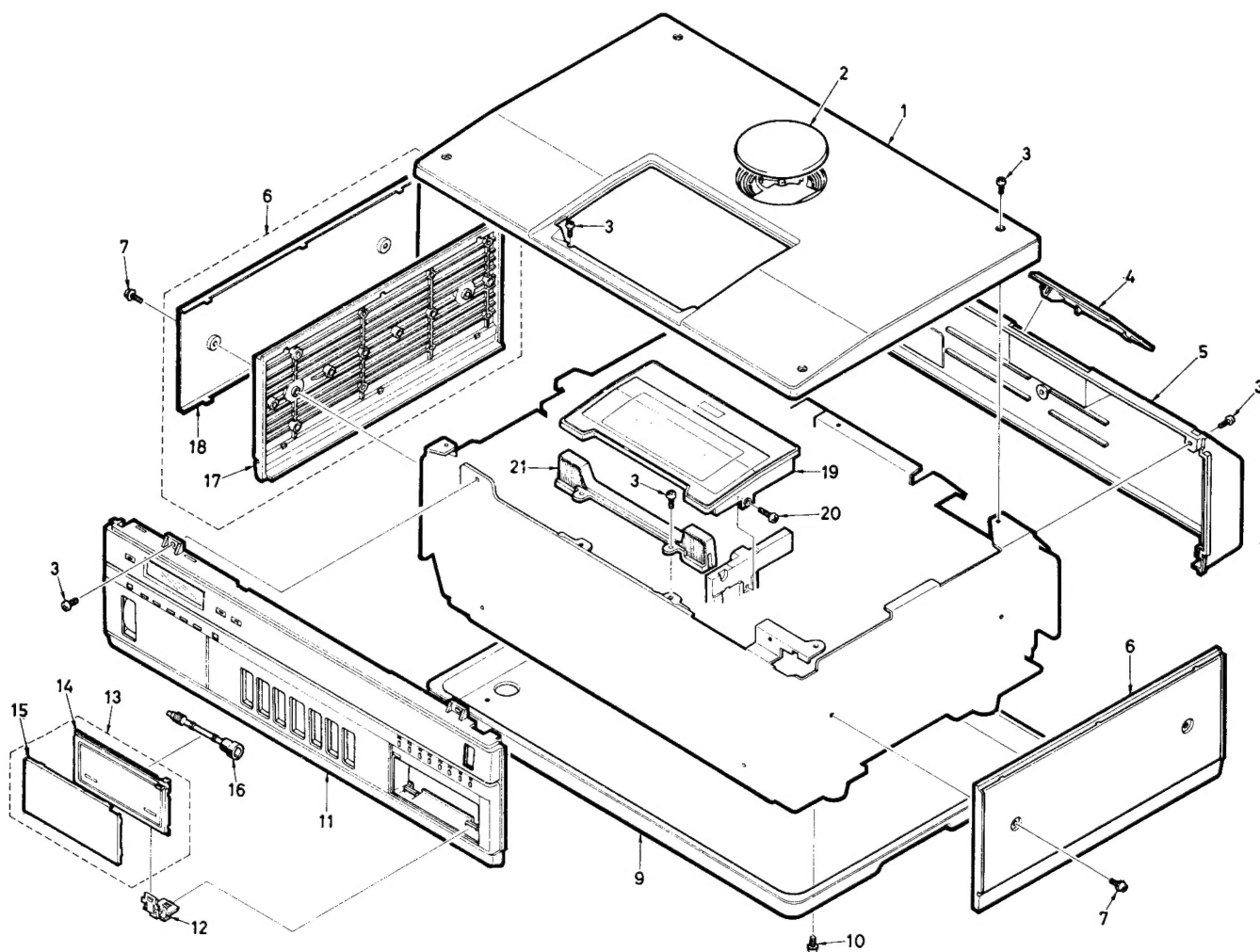
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	143-6-411T-06600	Owner's Manual (in German)		143-6-132T-04600	Individual Carton
	143-6-411T-06601	Owner's Manual (in English)		143-6-144T-01501	Top Pad, Right side
	143-6-252T-01400	Dust Cover		143-6-144T-01601	Top Pad, Left Side
	143-6-451T-04400	Operating Instructions		143-6-144T-01701	Bottom Pad, Right Side
	4-243V-33100	Antenna Output Cable		143-6-144T-01801	Bottom Pad, Left Side
	143-6-322T-25350	Polyethylene Cover, 250 x 350 x 0.05 mm		143-6-251T-01200	Individual Form-polyethylene Cover
	4-231V-92900	Switch, Remote Control		143-6-315T-00700	Box, Accessories

NOTE: 1. Parts order must contain Model Number, Part Number and Description.

## CABINET PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	143-2-124T-02900	Top Lid	11	143-9-4200-13300	Front Panel
2	143-2-135T-07500	Circular Lid	12	143-2-251T-00600	Hinge
3		Screw, Bind Hd. Machine, 3 x 8 mm, B1	13	143-9-4200-13400	Tuning Panel Assembly, Channel Pre-set
4	143-2-133T-00200	RF Cover	14	143-2-135T-07400	Marking Plate, Tuning Panel
5	143-2-126T-01500	Back Panel	15	143-2-129T-00700	Tuning Panel
6	143-0-123T-01000	Side Panel Assembly	16	143-2-566T-00100	Driver, Channel Pre-set
7		Screw with Lock Washer (External Tooth), Bind Hd. Machine, 4 x 10 mm, C2	17	143-2-123T-03400	Side Panel
9	143-2-125T-01003	Bottom Lid	18	143-2-129T-00900	Side Plate
10		Screw with Lock Washer (External Tooth), Bind Hd. Machine, 4 x 8 mm, B1	19	143-0-135T-01300	Cover, Cassette
			20		Screw, Bind Hd. Machine, 3 x 12 mm, B1
			21	143-2-241T-00603	Cassette Guide

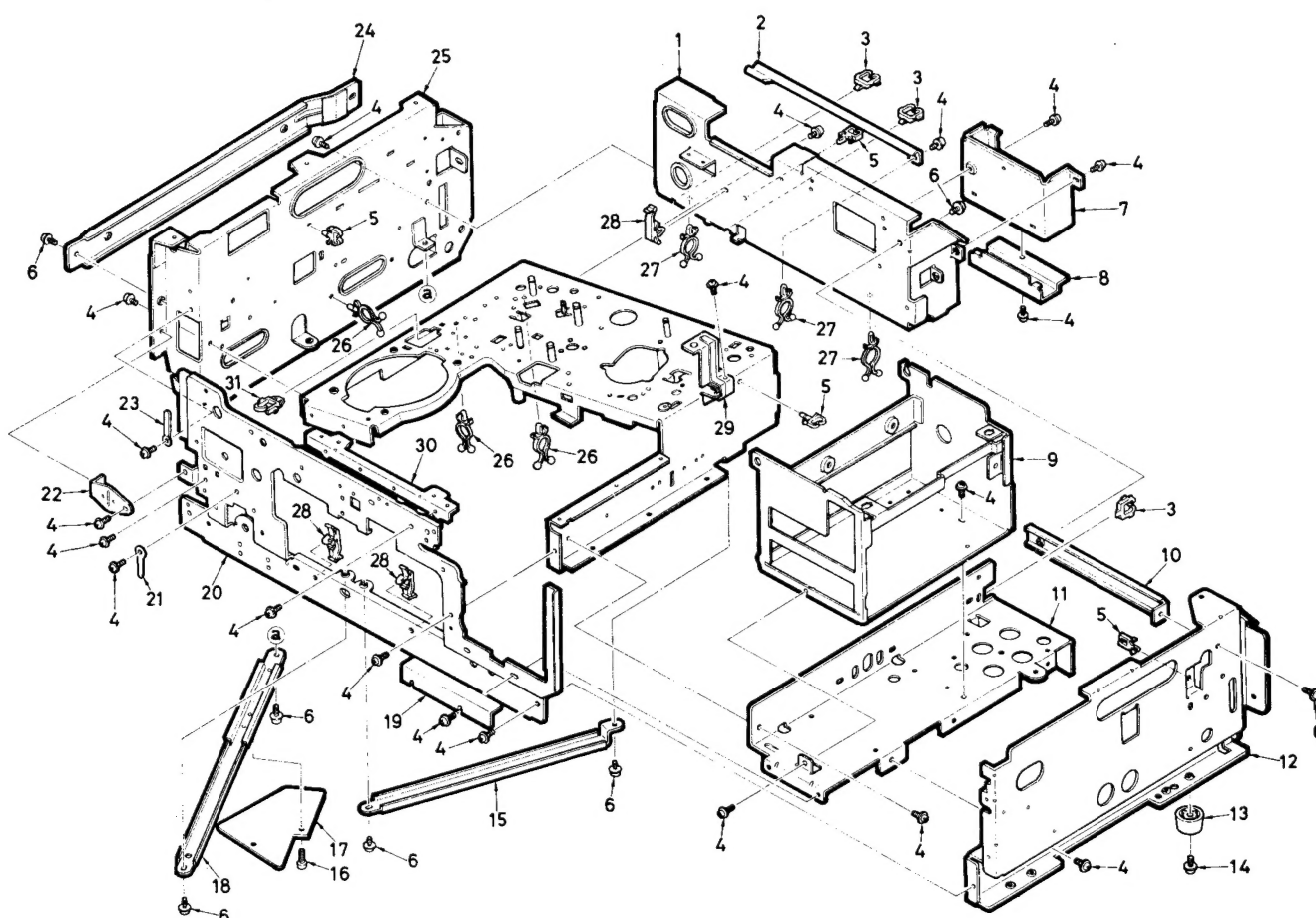
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## FRAME PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	143-0-312T-00501	Rear Frame	15	143-2-316T-00501	Reinforcement Bracket, Right
2	143-2-367T-02000	Bracket, Terminal Board	16		Screw, Bind Hd. Tapping, 3 x 6 mm, Z1
3	143-2-464T-01900	Wire Protector	17	143-2-322T-07300	Shield Plate
4		Screw, Washer Hd. Machine (TP Screw), 3 x 6 mm, Z1	18	143-2-316T-00600	Reinforcement Bracket, Left
5	143-2-464T-02400	Wire Clamper, Square Middle Type	19	143-2-135T-07200	Decorative Sheet
6		Screw with Spring & Flange Washer, Pan Hd. Machine, 4 x 8 mm, Z1	20	143-0-312T-01400	Front Frame
7	143-2-181T-00800	RF Case	21	123-2-472R-00600	Lug, Wire Holder
8	143-2-351T-30300	Bracket, RF Converter Socket	22	143-2-365T-06902	Bracket, Power ON/OFF Switch
9	143-0-312T-01100	Tuner Box	23	141-2-472T-01001	Wire Clamp
10	143-2-351T-29001	Reinforcement Bracket, Right Frame	24	143-2-351T-28151	Protection Bracket
11	143-0-312T-01200	Frame, Power Transformer	25	143-0-312T-01000	Left Frame
12	143-0-312T-01300	Right Frame	26	143-2-464T-03100	Wire Clamper, Round Middle Type
13	111-2-1730-10800	Foot (4 used)	27	143-2-464T-02300	Wire Clamper, Round Large Type
14		Screw with Bolt Washer, Pan Hd. Machine, 3 x 10 mm, Z1	28	143-2-464T-04300	Wire Holder
			29	143-2-315T-01401	Reinforcement, Cabinet Top
			30	143-2-224T-00301	Bracket, Cassette Guide
			31	143-2-464T-03200	Wire Protector

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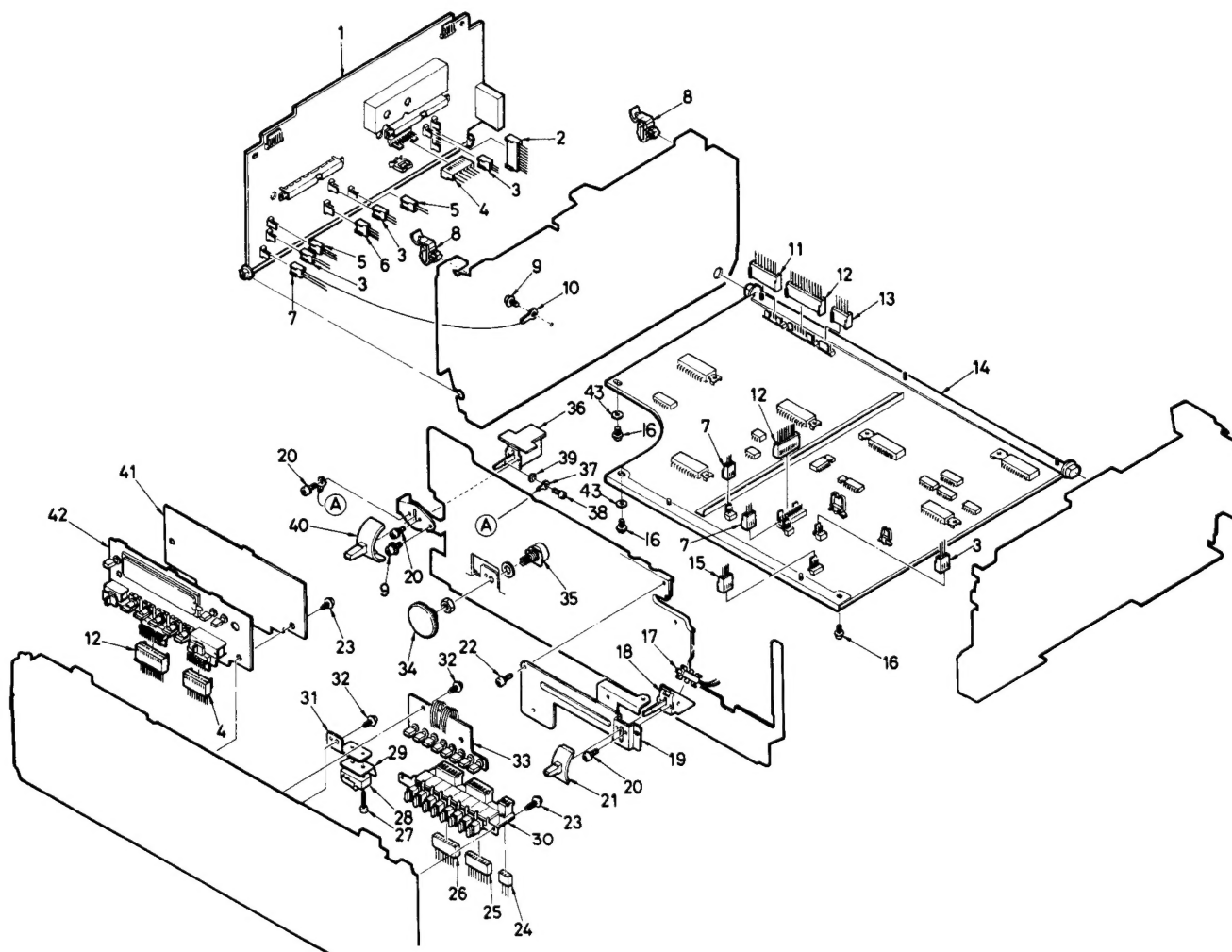


## FRONT CONTROL PARTS

Ref. No.	Part No.	Description
1	143-9-0100-01000	W1 Circuit Board Assembly
2	4-236V-19012	Connector, Female 12-pin (Black)
3	4-236V-18803	Connector, Female 3-pin (Natural)
4	4-236V-18810	Connector, Female 10-pin (Natural)
5	4-236V-19003	Connector, Female 3-pin (Black)
6	4-236V-18904	Connector, Female 4-pin (Red)
7	4-236V-18903	Connector, Female 3-pin (Red)
8	143-2-377T-03900	Stopper, W1 Circuit Board Assembly
9		Screw, Washer Hd. Machine (TP Screw), 3 x 6 mm, Z1
10	123-2-472R-00400	Lug, Grounding
11	4-236V-18808	Connector, Female 8-pin (Natural)
12	4-236V-18812	Connector, Female 12-pin (Natural)
13	4-236V-19005	Connector, Female 5-pin (Black)
14	143-9-0200-01600	W2 Circuit Board Assembly
15	4-236V-19004	Connector, Female 4-pin (Black)
16		Screw, Washer Hd. Machine (TP Screw)
17	143-2-253T-04200	Cable, VIDEO/ANT Select
18	4-231V-92000	Lever, VIDEO/ANT Select
19	143-2-365T-07200	Bracket, VIDEO/ANT Select Lever
20		Screw with Spring Washer, Pan Hd. Machine, 3 x 6 mm, Z1
21	143-9-4300-16800	Lever Knob, VIDEO/ANT Select
22		Screw, Pan Hd. Machine, 3 x 6 mm, Z1
23		Screw, Washer Hd. Tapping (B-tight), 3 x 8 mm, Z1

Ref. No.	Part No.	Description
24	4-236V-18503	Connector, Female 3-pin (Natural)
25	4-236V-18608	Connector, Female 8-pin (Natural)
26	4-236V-18608	Connector, Female 8-pin (Natural)
27		Screw, Pan Hd. Machine, 2.3 x 8 mm, Z1
28	4-231T-11903	Micro Switch, AFT ON/OFF
29	143-2-246T-01200	Insulation Sheet, Micro Switch
30	143-9-1400-00500	W14 Circuit Board Assembly, Pre-set
31	143-2-365T-07300	Bracket, Switch
32		Screw, Washer Hd. Tapping (B-tight), 3 x 6 mm, Z1
33	143-9-1500-00300	W15 Circuit Board Assembly, Channel Indicator
34	143-2-163T-01501	Rotary Knob, Tracking Control
35	4-222V-61800	Variable Resistor (Tracking Control)
36	143-9-1900-00600	W19 Circuit Board Assembly, Power ON/OFF Switch
37	4-243V-52300	Grounding Wire
38		Screw, Pan Hd. Machine, 2 x 4 mm, Z1
39		Lock Washer, 2 mm (External Tooth)
40	143-2-162T-01900	Knob, Power ON/OFF
41	143-2-327T-01800	Insulator, W20 Circuit Board
42	143-9-2000-00600	W20 Circuit Board Assembly, Timer (for Continent and England)
42	143-9-2000-00601	W20 Circuit Board Assembly, Timer (for Australia only)
43		Fiber Washer, 3 x 10 x 1 mm

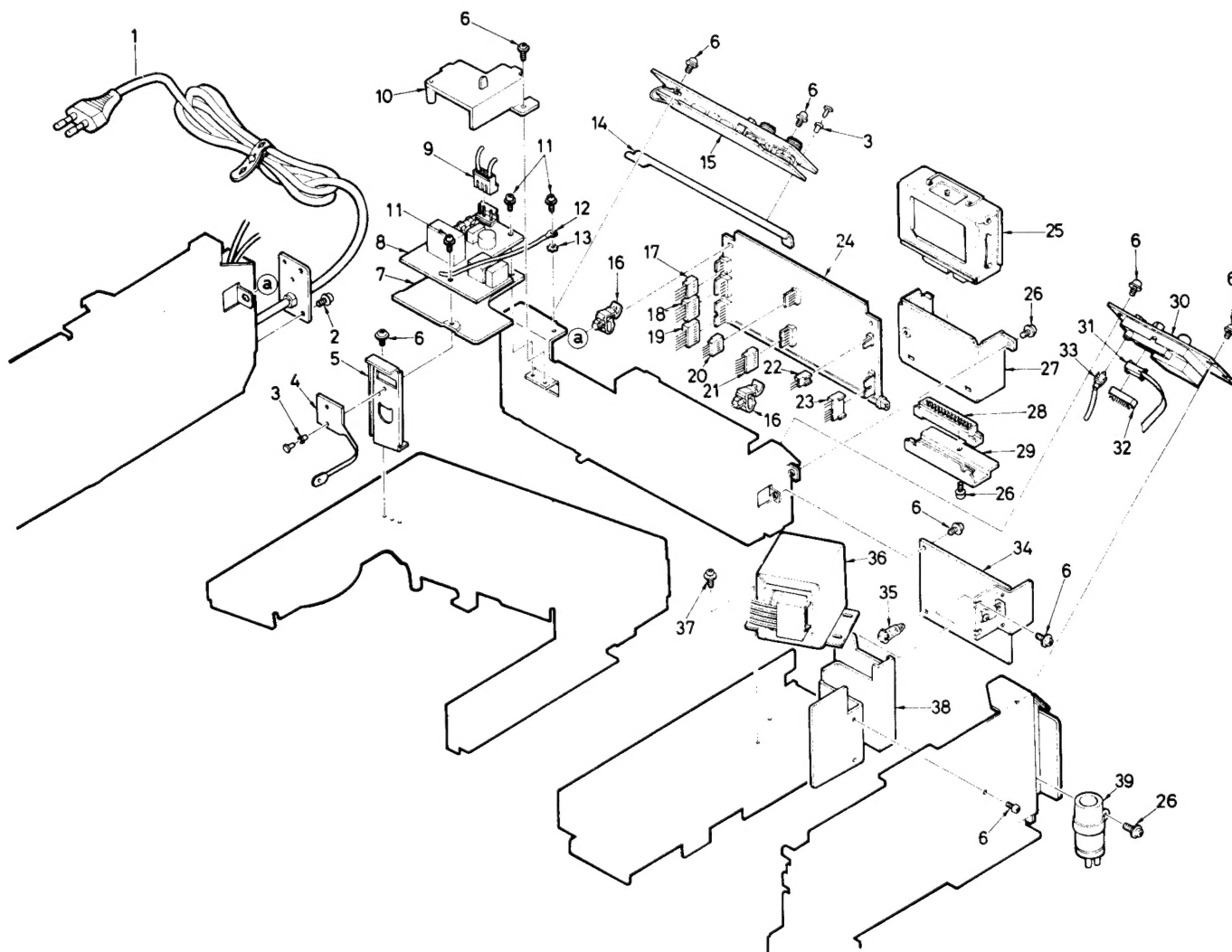
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## REAR TERMINAL PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	⚠ 143-9-4300-16600	Power Cord with Fixer & Bracket (for Continent)	18	4-236V-18805	Connector, Female 5-pin (Natural)
1	⚠ 143-9-4300-19500	Power Cord with Fixer & Bracket (for England)	19	4-236V-18807	Connector, Female 7-pin (Natural)
1	⚠ 143-9-4300-19400	Power Cord with Fixer & Bracket (for Australia)	20	4-236V-19005	Connector, Female 5-pin (Black)
2		Screw, Binding Hd. Machine, 3 x 8 mm, B1	21	4-236V-18806	Connector, Female 6-pin (Natural)
3	143-2-464T-01800	Plastic Pin	22	4-236V-18803	Connector, Female 3-pin (Natural)
4	4-226V-28200	W10 Printed Wire	23	4-236V-18808	Connector, Female 8-pin (Natural)
5	143-2-351T-26902	Bracket, W10 Printed Wire	24	143-9-0400-01000	W4 Circuit Board Assembly, System Control
6		Screw, Washer Hd. Machine (TP Screw), 3 x 8 mm, Z1	25	143-9-4100-08400	RF Converter
7	143-2-246T-00402	Insulation Sheet, W7 Circuit Board	26		Screw, Washer Hd. Machine (TP Screw), 3 x 6 mm, Z1
8	143-9-0700-01300	W7 Circuit Board Assembly	27	143-2-181T-00800	RF Case
9	4-236V-18703	Connector, Female 3-pin	28	4-235V-20200	RF Socket
10	143-2-135T-06900	Insulation Cover, W7 Circuit Board	29	143-2-351T-30300	Bracket, RF Socket
11		Screw with Spring & Flange Washer, Pan Hd. Machine, 3 x 10 mm, Z1	30	4-237V-12200	ANT Terminal Board
12	4-243V-52000	Grounding Lug with Lead Wire	31	143-2-253T-04200	Cable, VIDEO/ANT Select
13		Lock Washer, 3mm (External Tooth)	32	143-9-2500-00100	W25 Circuit Board Assembly, RF Select
14	143-2-367T-02000	Bracket, Terminal Board	33	143-0-236V-01900	RCA Pin Connector, with Lead Wire
15	143-9-4300-16700	Terminal Board, with W8 Circuit Board Assembly	34	143-9-0300-01300	W3 Circuit Board Assembly, DC Power Supply
16	143-2-377T-03900	Stopper, W4 Circuit Board	35	143-2-464T-02101	Fixer, W3 Circuit Board
17	4-236V-18804	Connector, Female 4-pin (Natural)	36	⚠ 4-251V-16501	Power Transformer
			37		Screw with Spring & Flange Washer, Pan Hd. Machine, 4 x 10 mm, Z1
			38	143-2-368T-02900	Heat Sink
			39	⚠ 4-223V-16200	Electrolytic Capacitor, 10000 mfd. 25V

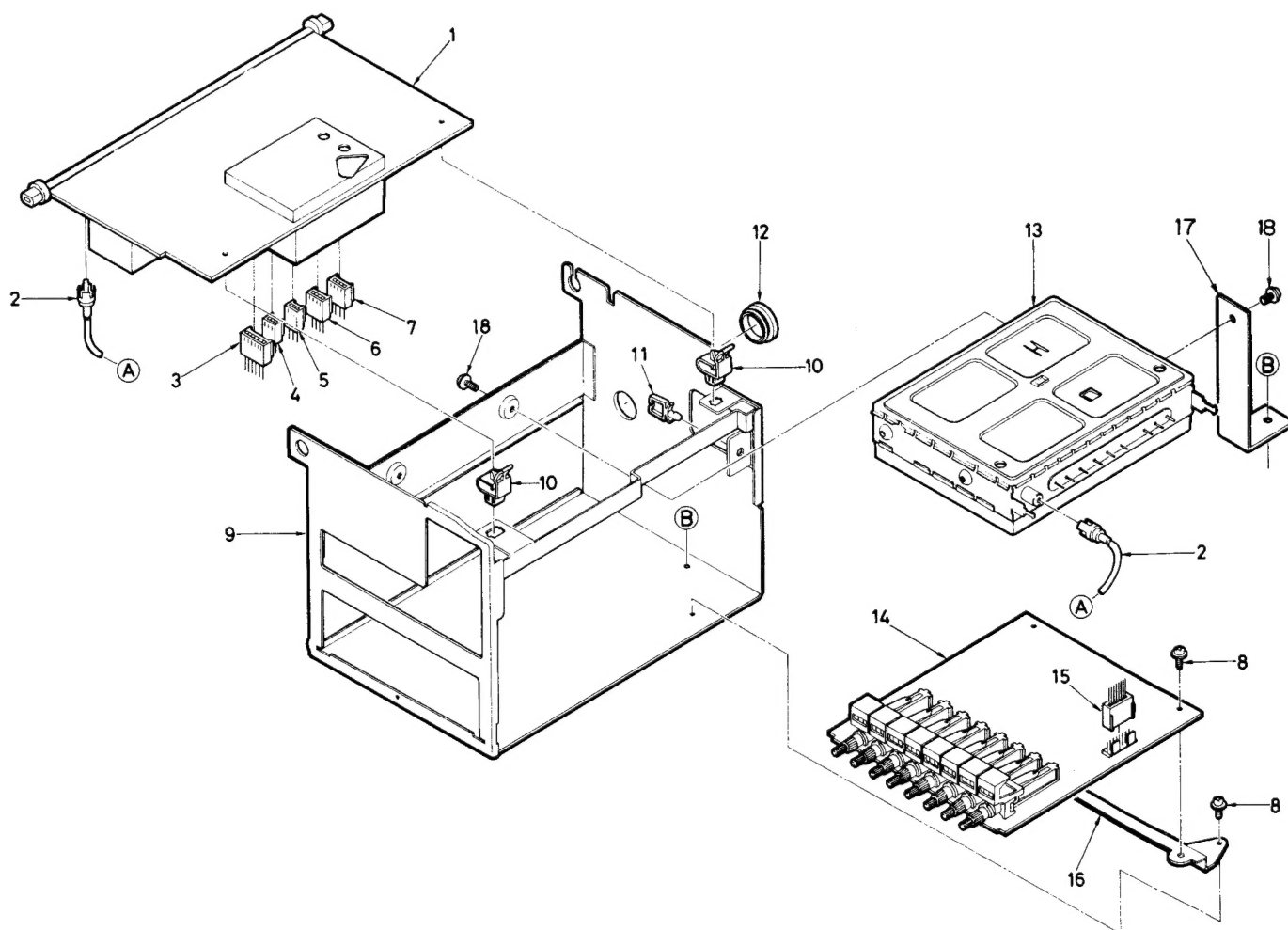
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## TUNER BLOCK PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	143-9-0500-01000	W5 Circuit Board Assembly, Tuner (for Continent)	11	143-2-464T-02400	Wire Clamper, Square Middle Type
1	143-9-0500-01300	W5 Circuit Board Assembly, Tuner (for England)	12	143-2-464T-02900	Wire Protector, Tuner Box
1	143-9-0500-01200	W5 Circuit Board Assembly, Tuner (for Australia)	13	4-115V-12000	Tuner (for Continent/England)
2	143-0-236V-07800	Coaxial Cable, with RCA-RCA Pin	13	4-115V-12100	Tuner (for Australia)
3	4-236V-18806	Connector, Female 6-pin (Natural)	14	143-9-1200-00500	W12 Circuit Board Assembly, Pre-set
4	4-236V-18903	Connector, Female 3-pin (Red)	15	143-0-236V-07700	Connector with Lead Wire, Female 8-pin (Natural)
5	4-236V-19003	Connector, Female 3-pin (Black)	16	143-2-377T-06100	Bracket, W12 Circuit Board
6	4-236V-18904	Connector, Female 4-pin (Red)	17	143-2-359T-00200	Reinforcement, Tuner (for Continent/England)
7	4-236V-18804	Connector, Female 4-pin (Natural)	17	143-2-359T-00300	Reinforcement, Tuner (for Australia)
8		Screw, Washer Hd. Machine (TP Screw), 3 x 6 mm, Z1	18		Screw with Spring & Flange Washer, Pan Hd. Machine, 3x6 mm, Z1 (for Continent/England)
9	143-0-312T-01100	Tuner Box	18		Screw with Spring Washer, Pan Hd. Machine, 3x6 mm, Z1 (for Australia)
10	143-2-377T-03900	Stopper, W5 Circuit Board			

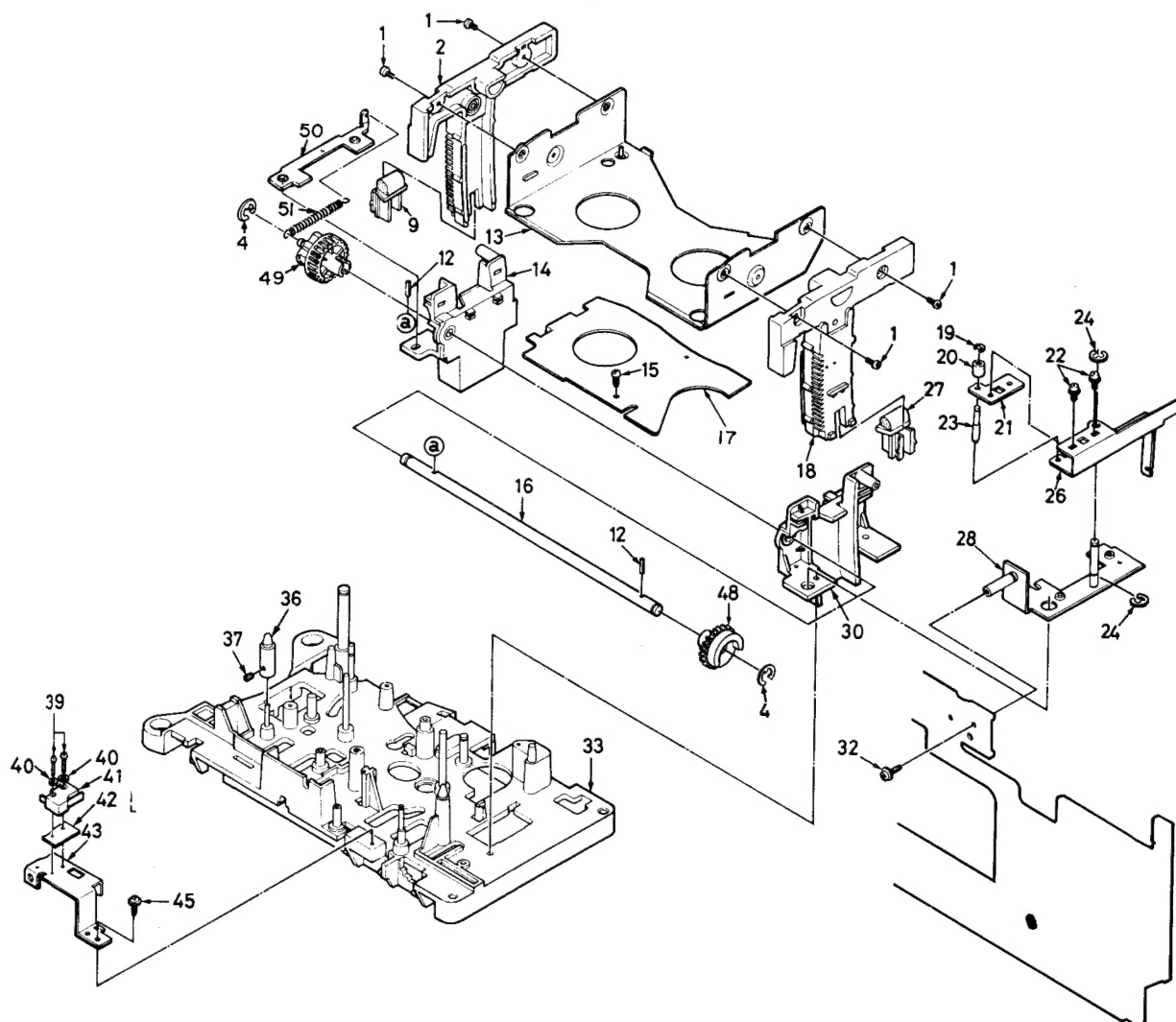
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# CASSETTE HOLDER MECHANISMS PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		Screw, Bind Hd. Machine, 3 x 6 mm, B1	28	143-0-274T-00300	Bracket, Stand Holder
2	143-2-823T-01302	Cassette Holder Stand, Left Side	30	143-2-174T-00902	Right Holder, Cassette Holder Stand
4		"E" Ring, 5 mm	32		Screw, Washer Hd. Machine (TP Screw), 3 x 6 mm, Z1
9	143-0-465T-00301	Stopper with Cushion, Left Stand	33	143-2-311T-01706	Reel Chassis
12		Spring Pin, 3 x 10 mm	36	143-2-751T-31501	Pin, Cassette Position
13	143-0-351T-03704	Cassette Holder	37		Set Screw, Hex. Socket Hd. "W" Point, 3 x 6 mm, CP
14	143-2-174T-01003	Left Holder, Cassette Holder Stand	39		Screw, Pan Hd. Machine, 2 x 10 mm, Z1
15		Screw, Pan Hd. Tapping, 3 x 8 mm, B1	40		Washer, 2 x 4.5 x 0.4 mm
16	143-2-751T-36801	Shaft, Gear	41	4-231V-92600	Switch, Solenoid
17	143-2-246T-01100	Sheet Cover	42	143-2-352T-06000	Switch Spacer
18	143-2-823T-01202	Cassette Holder Stand, Right Side	43	143-2-365T-07100	Bracket, Switch
19		"E" Ring, 2 mm	45		Screw, Washer Hd. Tapping (B-tight), 3 x 6 mm, Z1
20	143-2-547T-02301	Cassette Lock Sleeve	48	143-2-581T-01700	Cassette-up Gear, Right Side
21	143-2-352T-06600	Cassette Lock Bracket	49	143-2-581T-01800	Cassette-up Gear, Left Side
22		Screw with Spring & Flange Washer, Pan Hd. Machine, 3 x 6 mm, Z1	50	143-2-274T-00401	Bracket, Cassette-up Spring Coil
23	143-2-751T-35201	Shaft, Cassette Lock Sleeve	51	143-2-851T-47700	Spring Coil, Cassette-up
24		"E" Ring, 4 mm			
26	143-2-741T-24300	Cassette Lock Lever			
27	143-0-465T-00400	Stopper with Cushion, Right Stand			

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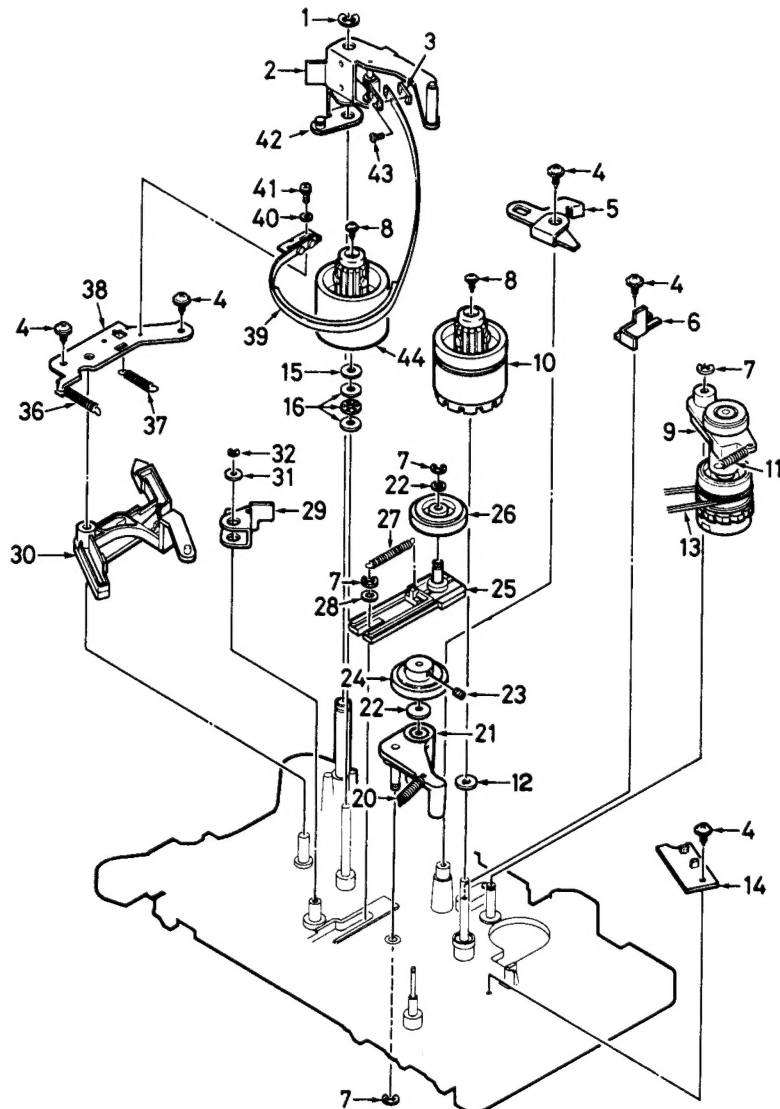




## REEL DRIVE MECHANISM PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		"E" ring, 4 mm	23		Set Screw, Hex Socket Hd. "W" Point, 3x6mm, CP
2	143-0-741T-13552	Back Tension Lever	24	143-0-547T-00200	F.FWD Roller
3	143-2-351T-29500	Bracket, Brake Band	25	143-2-731T-07000	Slide, REW Idler
4		Screw, Washer Hd. Tapping (B-tight), 3x6mm, Z1	26	143-0-551T-01400	REW Idler
5	143-2-741T-21700	Lever, Unloading Stopper	27	143-2-851T-44800	Spring Coil, REW Idler
6	143-2-465T-07900	Unloading Stopper	28		Washer, 4x8x0.5 mm
7		"E" Ring, 3mm	29	143-0-741T-12501	Supply Reel Brake
8		Screw, Washer Hd. Machine, 2.6x6 mm, Z1	30	143-0-741T-14300	Brake Release Lever
9	143-0-741T-11101	FWD Roller with Spring Coil	31		Bolt Washer, 3x8x0.5 mm
10	143-0-531T-02000	Take-up Reel	32		"E" Ring, 2 mm
11	143-2-851T-42800	Spring Coil, FWD Roller	36	143-2-851T-44701	Spring Coil, Supply Reel Brake
12	143-2-457T-04300	Special Washer, Take-up Reel Height Adj.	37	143-2-851T-46200	Spring Coil, Brake Release Lever
or	143-2-457T-04400	Special Washer, Take-up Reel Height Adj.	38	143-2-351T-25203	Bracket, Brake Band
or	143-2-457T-04500	Special Washer, Take-up Reel Height Adj.	39	143-0-711T-00200	Brake Band, Back Tension
13	143-2-564T-01301	Square Belt, Drive Belt	40		Washer, 3 mm
14	143-9-1300-00100	W13 Circuit Board Assembly, Take-up Reel Revolution Detector	41		Screw with Spring Washer, Pan Hd. Machine, 3x6mm, Z1
15	143-2-352T-05800	Spacer (0 ~ 2 pcs. used), Supply Reel	42	143-0-741T-11900	Lever, Back Tension
16	143-2-574T-02101	Ball Bearing, Supply Reel	43		Screw with Spring Washer, Pan Hd. Machine, 2x4 mm, Z1
20	143-2-851T-44902	Spring Coil, F.FWD Roller Lever	44	143-0-531T-01900	Supply Reel
21	143-0-741T-11504	Lever with Spring Coil, F.FWD Roller			
22		Poly Washer, 4.1x6.5x0.5 mm			

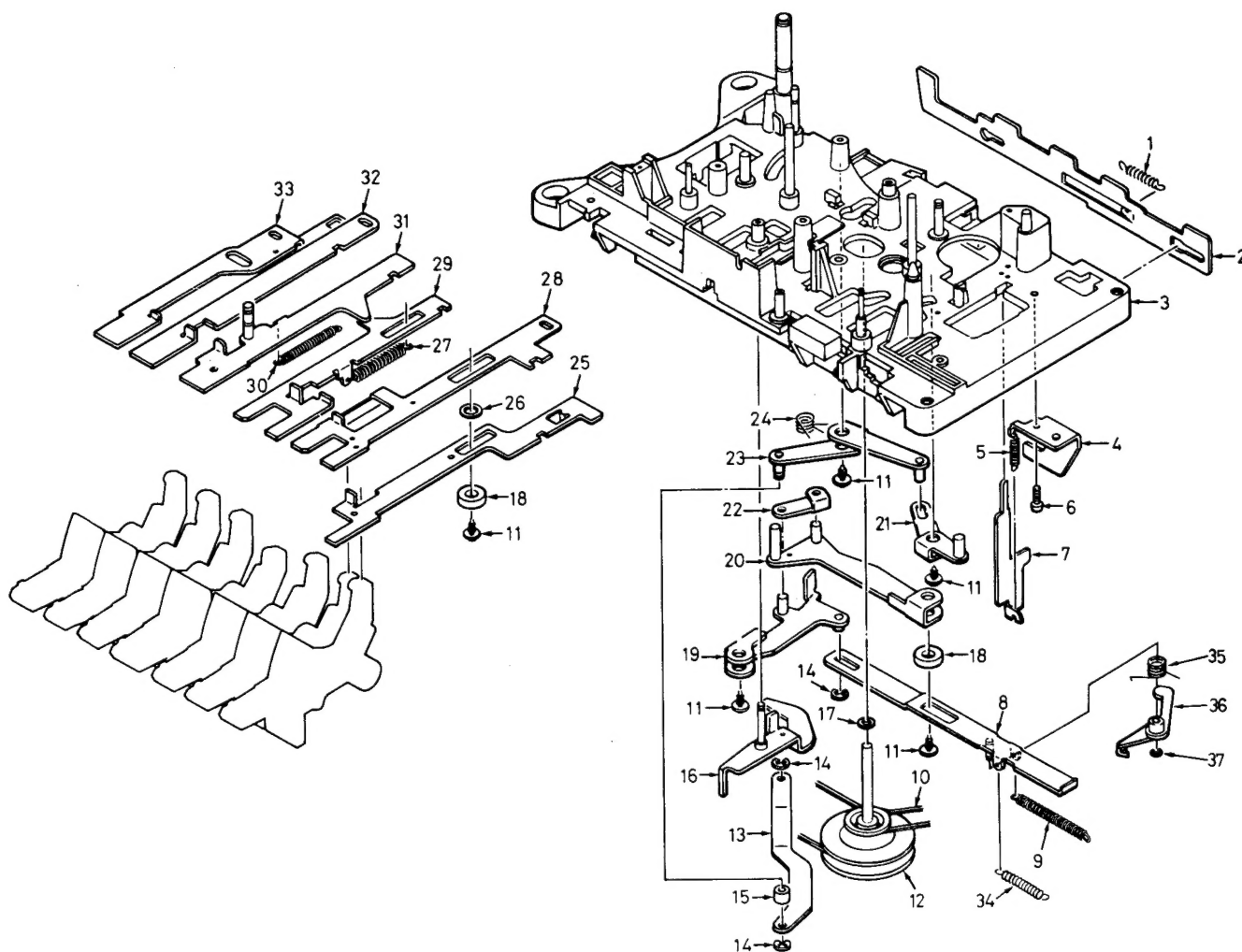
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## SLIDE MECHANISM PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1	143-0-851T-43901	Spring Coil, Slide Stopper	19	143-0-741T-12201	EJECT Lever, Lower
2	143-2-731T-07200	Slide Stopper	20	143-0-741T-12303	EJECT Lever, Upper
3	143-2-311T-01706	Reel Chassis	21	143-0-741T-12001	Lever, FWD Roller
4	143-2-465T-08000	Slide Stopper, Erase Prevention Slide	22	143-2-741T-19600	EJECT Link
5	143-2-851T-44501	Spring Coil, Erase Prevention Slide	23	143-0-741T-12101	F.FWD-REW Lever Arm
6		Screw, Pan Hd. Machine, 3x12mm, Z1	24	143-2-851T-43800	Spring Coil, F.FWD-REW Lever
7	143-2-731T-06800	Slide, Erase Prevention	25	143-2-731T-05902	REC Slide
8	143-9-5100-14600	Slide, Cassette Lock	26		Nylon Washer, 6.2x9.5x0.8 mm
9	143-2-851T-45300	Spring Coil, Cassette Lock Slide	27	143-2-851T-45101	Spring Coil, F.FWD Slide
10	143-2-564T-01301	Square Belt, FWD Belt	28	143-2-731T-07100	FWD Slide
11		Screw, Washer Hd., Tapping (B-tite) 3x6mm, Z1	29	143-2-731T-05401	F.FWD Slide
12	143-0-661T-02900	Pulley, F.FWD Roller	30	143-2-851T-45000	Spring Coil, REW Slide
13	143-2-253T-02902	Joint, Back Tension Lever	31	143-0-731T-00801	REW Slide
14		"E" Ring, 3 mm	32	143-2-731T-05602	PAUSE Slide
15	143-2-681T-07301	Sleeve Joint	33	143-2-731T-05703	EJECT Slide
16	143-0-741T-13600	Lever, Supply Reel	34	143-2-851T-47300	Spring Coil, Cassette Lock Slide
17		Poly Washer, 4.1x6.5x0.5 mm	35	143-2-851T-47400	Spring Coil, Pawl Lever
18	143-2-683T-07501	Slide Spacer	36	143-2-741T-05100	Pawl Lever
			37		"E" Ring, 2.3 mm

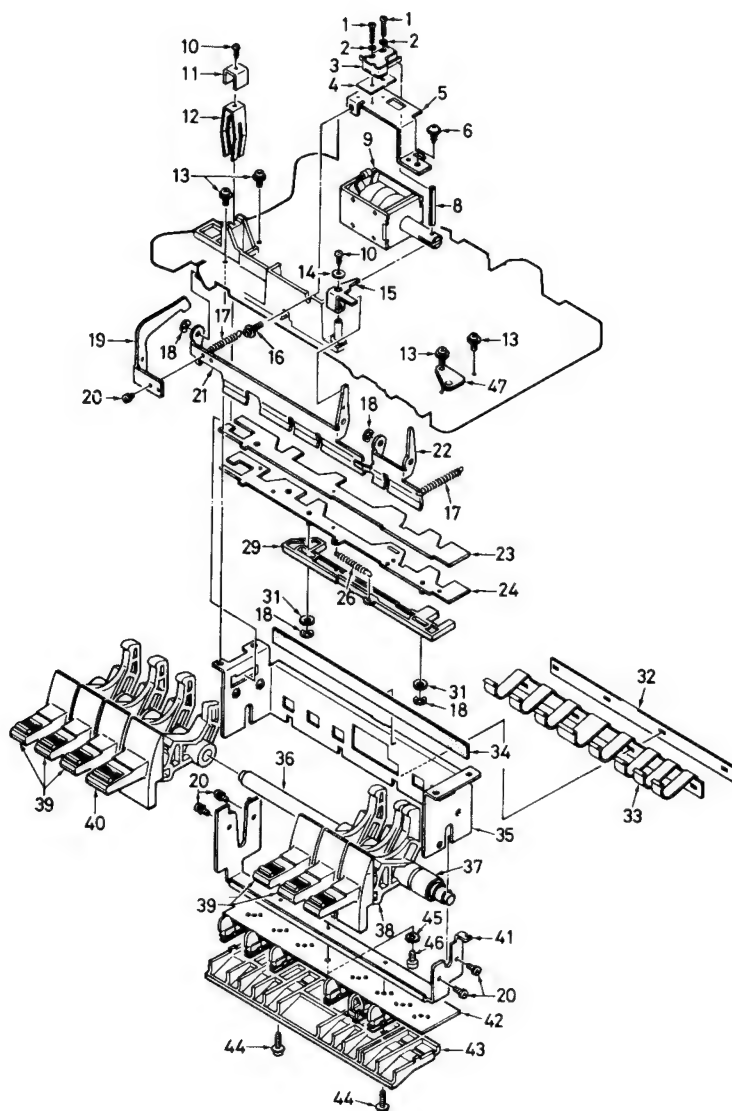
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## PUSH BUTTON MECHANISM PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		Screw, Pan Hd. Machine, 2x10 mm, Z1	21	143-2-741T-18403	Lock Lever Plate, Push Button
2		Washer, 2x4.5x0.4 mm	22	143-2-741T-18504	Lock Lever Plate, REC Button
3	4-231V-92600	Solenoid Switch	23	143-2-673T-01200	Push Button Slide, Upper
4	143-2-352T-06000	Switch Spacer	24	143-0-671T-00700	Push Button Slide, Lower
5	143-2-365T-07100	Bracket, Switch	26	143-2-851T-46501	Spring Coil, Plastic Slide
6		Screw, Washer Hd. Tapping (B-tite), 3x6mm, Z1	29	143-2-673T-00800	Plastic Slide
8		Spring Pin, 3x25mm, Solenoid	31		Washer, 4 mm
9	4-264V-10800	Solenoid (Diode not Included)	32	143-2-858T-01802	Bracket, Spring Plate
or	4-264V-11400	Solenoid (Diode not Included)	33	143-2-483T-01100	Spring Plate, Push Button
10		Screw, Pan Hd. Tapping, 2.3x6 mm, Z1	34	143-2-445T-01600	Button Cushion
11	143-2-858T-01901	Bracket, Spring Plate	35	143-2-613T-01300	Push Button Frame
12	143-2-483T-01003	Spring Plate	36	143-2-612T-00401	Shaft, Push Button
13		Screw with Spring & Flange	37	143-2-462T-12901	Spacer, Push Button
14		Washer, Pan Hd. Machine, 3x8mm, Z1	38	143-9-5100-09800	REC Button
15	143-2-741T-18304	Bolt Washer, 2.5x7.5x0.5 mm	39	143-9-5100-09700	Button, EJECT/PAUSE/REW/F.FWD/PLAY
16		Solenoid Lever	40	143-9-5100-09600	STOP Button
17		Screw with Spring & Flange	41	143-2-365T-06401	Sub Frame, Push Button
18		Washer, Pan Hd. Machine, 3x6mm, Z1	42	143-9-0600-00700	W6 Circuit Board Assembly
19	143-2-851T-42901	Spring Coil, Lock Lever	43	143-2-135T-05903	Cover, W6 Circuit Board
20	143-2-741T-23601	"E" Ring, 3 mm	44		Screw, Pan Hd. Tapping, 3x12mm, Z1
		EJECT Lever Arm	45		Lock Washer (External Tooth), 3 mm
		Screw with Spring Washer, Pan Hd. Machine, 3x6 mm, Z1	46		Screw, Pan Hd. Tapping, 3x6 mm, Z1
			47	143-2-472T-62400	Bracket, Grounding

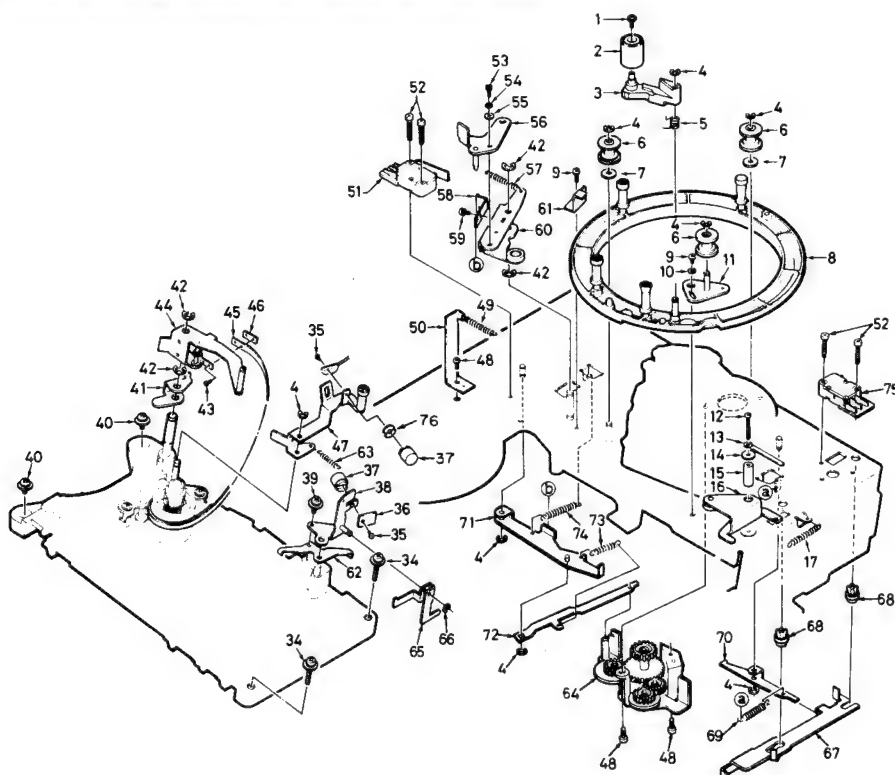
NOTE: 1. Parts order must contain Model Number, Part Number and Description.



## LOADING MECHANISM PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		Screw, Washer Hd. Machine (TP Screw), 2.6x6 mm, Z1	45	143-0-711T-00200	Brake Band, Back Tension
2	143-0-541T-00300	Pinch Roller	46	143-2-351T-29500	Bracket, Brake Band
3	143-0-545T-01400	Pinch Roller Arm	47	143-0-741T-11805	FWD Sensor Lever
4		"E" Ring, 3 mm	48		Screw, Washer Hd. Machine (TP Screw), 3x6 mm, Z1
5	143-2-851T-42600	Spring Coil, Pinch Roller Arm	49	143-2-851T-43101	Spring Coil, Back Tension
6	143-2-662T-06801	Loading Guide Roller	50	143-2-858T-02000	Bracket, Back Tension Spring Coil
7	143-2-457T-04100	Special Washer	51	4-231V-93300	Loading Switch
8	143-0-351T-04602	Loading Ring	52		Screw with Spring & Flange Washer, Pan Hd. Machine, 3x14 mm, Z1
9		Screw with Spring Washer, Pan Hd. Machine, 3x6 mm, Z1	53		Bolt, Hex Socket Hd., 3x6 mm, CP
10		Washer, 3 mm	54		Spring Washer, 3 mm
11	143-0-351T-04400	Bracket, Loading Guide Roller	55		Washer, 3 mm
12		Screw with Spring & Flange Washer, Pan Hd. Machine, 3x20 mm, Z1	56	143-0-741T-13401	Loading Lock Lever
13	123-2-472R-00401	Wire Clamp	57	143-2-851T-47101	Spring Coil, Loading Lock Lever
14		Bolt Washer, 3.4x10x0.5 mm	58	143-2-741T-24600	Bracket, Loading Switch
15	143-2-462T-14601	Shaft, Loading Ring Stop Lever	59		Screw with Spring Washer, Pan Hd. Machine, 3x4 mm, Z1
16	143-0-741T-12900	Stop Lever, Loading Ring	60	143-0-741T-13001	Loading End Lever
17	143-2-851T-46300	Spring Coil, Stop Lever	61	143-2-465T-02800	Loading Ring Stopper
34		Screw with Flange Washer, Pan Hd. Machine, 4x20 mm	62	143-2-853T-03600	Spring Plate, Grounding
35		Plastic Screw, Pan Hd. Machine, 2.6x4 mm	63	143-2-851T-44601	Spring Coil, FWD Sensor Lever
36	4-226V-28500	W23 Circuit Board, REW Sensor	64	143-0-581T-00601	Loading Gear Assembly
37	4-258V-11101	OSC Coil, REW & FWD Sensor	65	143-2-741T-24500	Cassette Switch Actuator
38	143-0-351T-04900	REW Sensor Bracket	66		"E" Ring, 2.3 mm
39		Screw, Washer Hd. Tapping (B-tite), 3x6 mm, Z1	67	143-2-731T-06901	Slide, Cassette Switch
40		Screw with Flange Washer, Pan Hd. Machine, 4x12 mm, Z1	68	143-2-462T-14200	Slide Shaft
41	143-0-741T-11900	Lever, Back Tension	69	143-2-851T-47000	Spring Coil, Operation Lever
42		"E" Ring, 4 mm	70	143-2-741T-24400	Operation Lever, Loading Gear
43		Screw with Spring Washer, Pan Hd. Machine, 2x4 mm, Z1	71	143-0-741T-14000	Unloading Lever
44	143-0-741T-13552	Back Tension Lever	72	143-2-253T-03401	Loading Gear Arm
			73	143-2-851T-47201	Spring Coil, Unloading
			74	143-2-851T-46901	Spring Coil, Loading
			75	4-231V-93400	Cassette Switch
			76	143-2-352T-06700	Rubber Spacer, FWD Sensor

NOTE: 1. Parts order must contain Model Number, Part Number and Description.

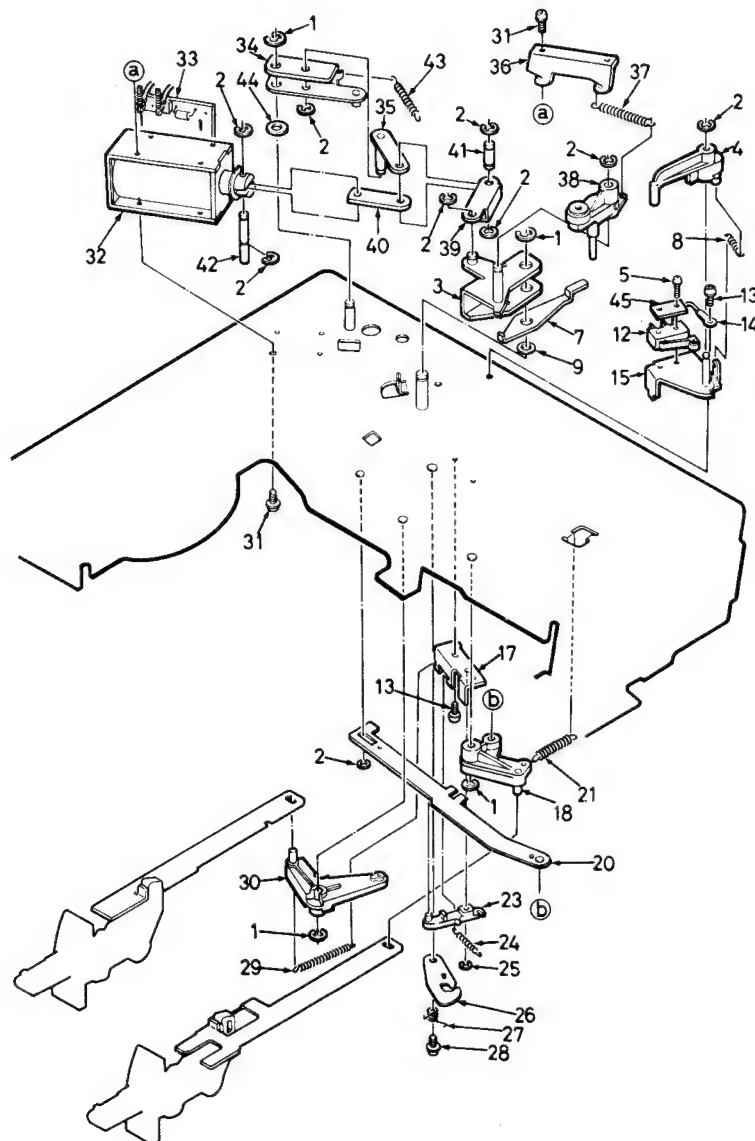




## PLAY & PAUSE MECHANISMS PARTS

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
1		"E" Ring, 4 mm	26	143-2-671T-00900	Lock Plate
2		"E" Ring, 3 mm	27	143-2-851T-42500	Spring Coil, Lock Plate
3	143-0-741T-13700	Pressure Lever, Pinch Roller	28		Screw with Spring & Flange Washer, Pan Hd. Machine, 3x6 mm, Z1
4	143-2-741T-18201	Tape Slack Sensor Lever	29	143-2-851T-47500	Spring Coil, Pause Lever
5		Screw with Spring Washer, Pan Hd. Machine, 2x10 mm, Z1	30	143-2-741T-05000	Pause Lever Arm
7	143-2-741T-24000	Lever, Slack Sensor Lever	31		Screw with Spring Washer, Pan Hd. Machine, 3x6mm, Z1
8	143-2-851T-43401	Spring Coil, Tape Slack Sensor Lever	32	4-264V-11300	Solenoid, Remote Pause
9		Poly Washer, 6x9.5x0.5 mm	33	143-9-2400-00100	W24 Circuit Board Assembly
12	4-231V-93100	Slack Switch	34	143-0-741T-14200	Lever, Remote Pause
or	4-231V-92700	Slack Switch	35	143-0-253T-00300	Bracket, Remote Pause
or	4-231V-92200		36	143-2-858T-02200	Bracket, Spring Coil
13		Screw, Washer Hd. Machine (TP Screw), 3x6 mm, Z1	37	143-2-851T-46700	Spring Coil, Take Brake Lever
14	123-2-472R-00400	Grounding Lug	38	143-0-741T-14100	Take Brake Lever
15	143-0-747T-00801	Bracket, Tape Slack Sensor Lever	39	143-2-253T-03300	Bracket, Pressure Lever
17	143-0-351T-04702	Bracket, Self Lock Lever	40	143-2-253T-03600	Bracket, Remote Pause Solenoid
18	143-2-741T-05300	Release Arm, Take Brake	41	143-2-751T-36500	Shaft, Remote Pause
20	143-0-253T-00200	Link, Release Arm	42	143-2-751T-36200	Shaft, Remote Pause Solenoid
21	143-2-851T-46600	Spring Coil, Release Arm	43	143-2-851T-46800	Spring Coil, Pinch Roller Pressure
23	143-2-741T-20700	Cancel Lever, Self Lock	44		Poly Washer, 5.2x8x0.5 mm
24	143-2-851T-43501	Spring Coil, Cancel Lever	45	143-2-365T-07000	Slack Switch Holder
25		"E" Ring, 2.3 mm			

**NOTE: 1. Parts order must contain Model Number, Part Number and Description.**

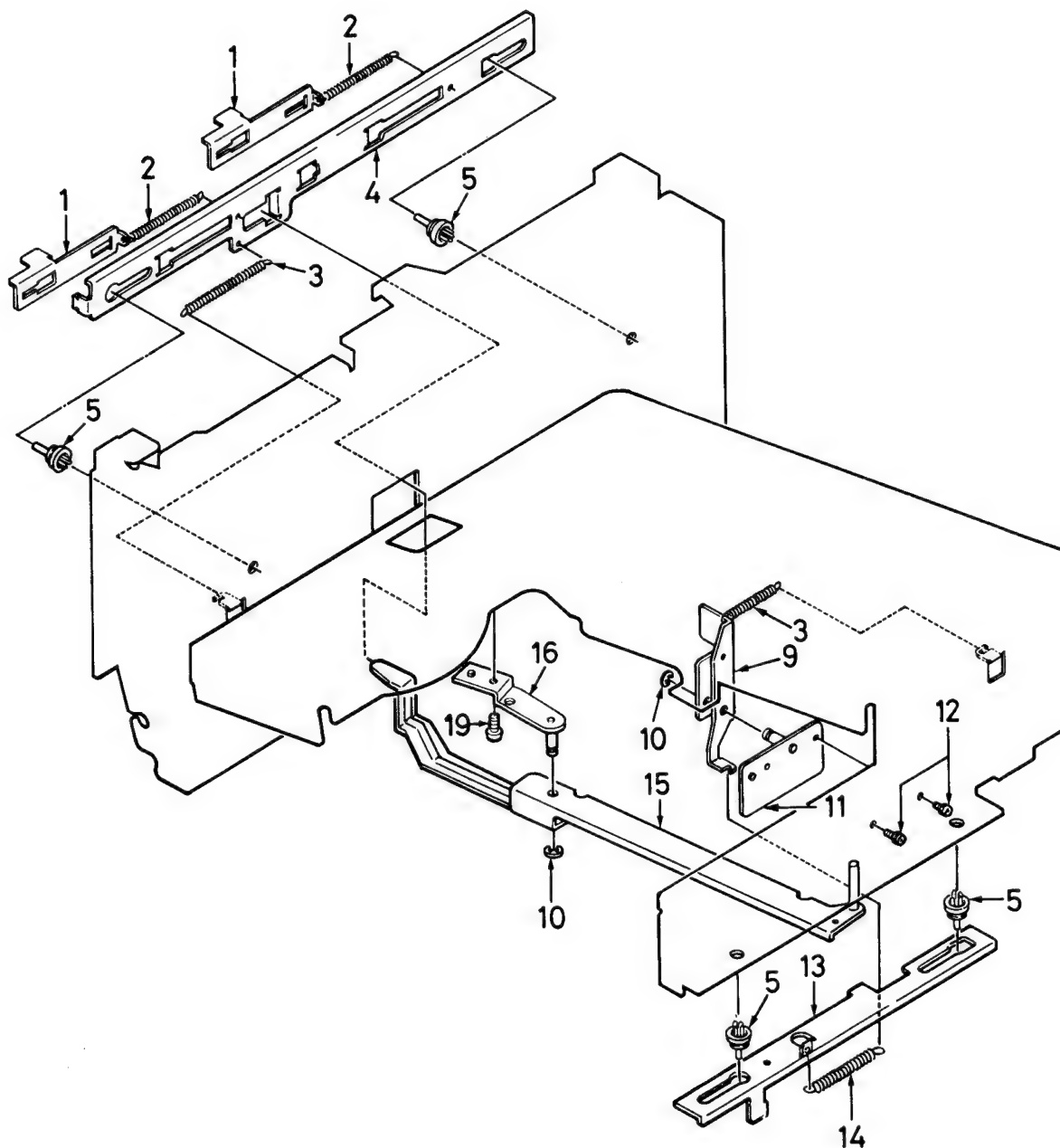


# EJECT AND R/P SWITCHES OPERATING MECHANISM PARTS

Ref. No.	Part No.	Description
1	143-2-741T-22403	Operation Lever, W1 R/P Switch
2	143-2-851T-44300	Spring Coil, Operation Lever
3	143-2-851T-44401	Spring Coil, Slide
4	143-2-741T-22802	Slide, Operation Lever
5	143-2-462T-14200	Slide Shaft
9	143-2-741T-22701	Lever, W2 R/P Switch
10		"E" Ring, 4 mm
11	143-0-747T-00901	Bracket, R/P Switch Lever

Ref. No.	Part No.	Description
12		Screw with Spring Washer, Pan Hd. Machine, 3x6 mm, Z1
13	143-2-731T-06403	Slide, W2 R/P Switch
14	143-2-851T-44202	Spring Coil, W2 R/P Switch
15	143-0-741T-11600	Operation Lever
16	143-0-747T-01000	Bracket, Operation Lever
19		Screw, Washer Hd. Machine (TP Screw), 3x6 mm, Z1

NOTE: 1. Parts order must contain Model Number, Part Number and Description.



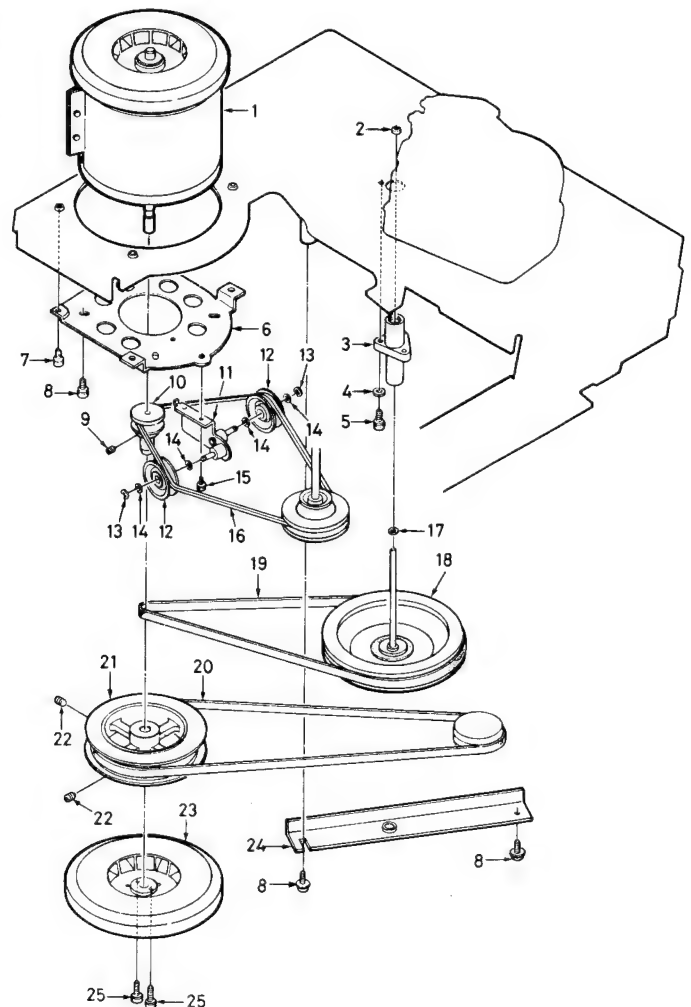
## BELT DRIVE MECHANISM PARTS

Ref. No.	Part No.	Description
1	△ 4-528V-10801	AC. Motor
or	△ 4-528V-10900	AC. Motor
2	143-2-683T-07200	Rubber Oil Ring
3	143-0-572T-00100	Bracket, Capstan
4		Washer, 3 mm
5		Screw, Pan Hd. Machine, 3x8 mm, Z1
6	143-2-378T-01002	Bracket, AC Motor
7		Screw with Spring & Flange
8		Washer, Pan Hd. Machine, 4x6 mm, Z1
9		Screw with Spring & Flange
		Washer, Pan Hd. Machine, 4x8mm, Z1
		Set Screw, Hex Socket Hd. "W" Point, 3x6 mm, CP
10	143-2-661T-65310	Capstan Pulley, Carved No. "1"
	143-2-661T-65320	Capstan Pulley, Carved No. "2"
	143-2-661T-65330	Capstan Pulley, Carved No. "3"
	143-2-661T-65340	Capstan Pulley, Carved No. "4"
	143-2-661T-65350	Capstan Pulley, Carved No. "5"
11	143-0-351T-04201	Bracket, Idler Pulley
12	143-0-661T-02602	Idler Pulley

Ref. No.	Part No.	Description
13		"E" Ring, 2 mm
14		Poly Washer, 3.1x5.4x0.5 mm
15		Screw with Spring Washer, Pan Hd. Machine, 3x6mm, Z1
16	143-2-564T-01201	Square Belt, Reel Belt
17		Poly Washer, 4x6.5x0.5mm
*18	143-0-521T-01501	Capstan Flywheel
*19	143-2-561T-01802	Flat Belt, Capstan Belt
*20	143-2-561T-02000	Flat Belt, Servo Belt
21	143-2-661T-00513	Servo Pulley, 61.31±0.03 Dia., Carved Number "1"
	143-2-661T-00523	Servo Pulley, 61.50±0.03 Dia., Carved Number "2"
	143-2-661T-00533	Servo Pulley, 61.62±0.03 Dia., Carved Number "3"
22		Set Screw, Hex. Socket Hd. "W" Point 4x6 mm, CP
23	143-2-379T-00601	Motor Fan
24	143-0-524T-00101	Retaining Bracket, Capstan Flywheel
25		Screw, Pan Hd. Machine, 2.6x10 mm, Z1

**Note:** The Capstan Pulley (#10) and the Servo Pulley (#21) have been selectively used dependent on the individual mechanism performance. For these parts replacement, be sure to use one of the same diameter as the original used in a unit under problem. Each diameter category of these parts can be identified with a number impressed on them.

\* Additionally, replacement of either original Servo Pulley or original Capstan Pulley or both may be required when either one of Capstan Flywheel (#18), Flat Belt (#19) and Flat Belt (#20) is replaced.

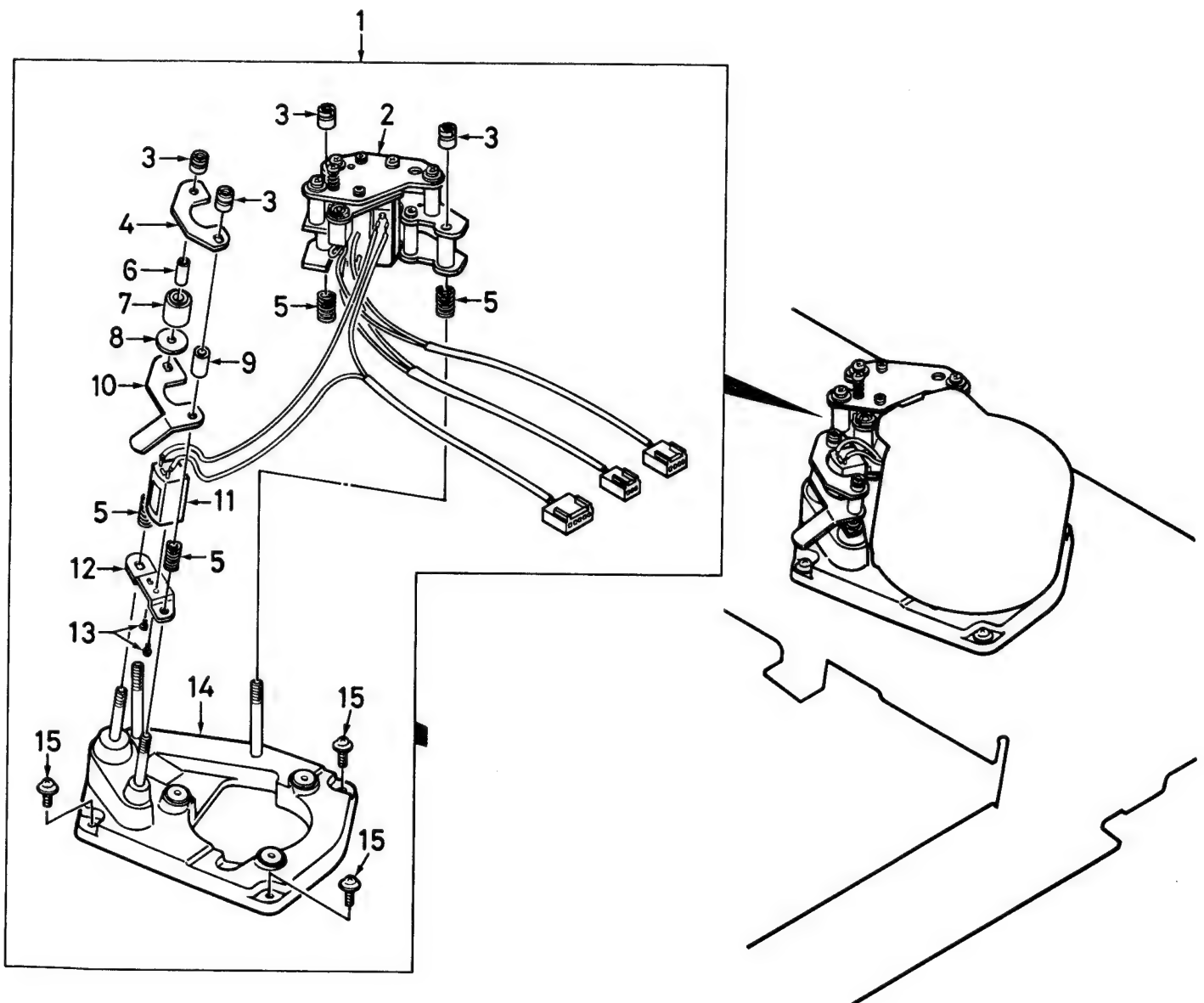


**NOTE:** 1. Parts order must contain Model Number, Part Number and Description.

## DRUM BASE PARTS

Ref. No.	Part No.	Description			
1	143-9-5100 15700	Drum Base Complete with Connectors	9	143-2-821T-05600	Tape Guide Shaft
2	143-0-242T-00200	Audio/Control Head Assembly	10	143-2-821T-05201	Lower Tape Guide, Erase Head
3	143-2-421T-03200	Special Nut, Tape Path Adjustment	11	4-242V-13300	Erase Head
4	143-2-821T-05001	Upper Tape Guide, Erase Head	12	143-2-375T-05501	Bracket, Erase Head
5	143-2-851T-42201	Spring Coil	13		Screw, Pan Hd. Machine, 2x4 mm, Z1
6	143-2-681T-07201	Sleeve, Erase Head	14	143-0-776T-00201	Drum Base
7	143-2-662T-07001	Roller, Erase Head	15		Screw Washer Hd. Machine (TP Screw), 3x10 mm, Z1
8	143-2-457T-03500	Special Washer			

**NOTE: 1. Parts order must contain Model Number, Part Number and Description.**





TRANSFORMERS

Schematic Location	Part No.	Description
T1	4-259V-13700	HF Coil Trans.
T2	4-288V-10500	Step-up Trans.
T3	or 4-288V-10600	Step-up Trans.
	4-288V-10500	Step-up Trans.
T201	or 4-288V-10600	Step-up Trans.
	4-259V-15100	HF Coil Trans.
T202	4-259V-15200	HF Coil Trans.
T203	4-259V-15300	HF Coil Trans.
T204	4-259V-15400	HF Coil Trans.
T205	4-259V-15500	HF Coil Trans.
T206	4-259V-15600	HF Coil Trans.
T207	4-259V-15700	HF Coil Trans.
T208	4-259V-15800	HF Coil Trans.
T209	4-259V-15900	HF Coil Trans.
T210	4-259V-16000	HF Coil Trans.
T212	4-259V-16200	HF Coil Trans.
T213	4-259V-16200	HF Coil Trans.
T601	4-258V-11301	OSC Coil Trans.
T901	4-256V-18700	IF Trans.
T902	or 4-256V-19800	IF Trans.
	4-256V-18800	IF Trans.
T903	or 4-256V-19900	IF Trans.
	4-256V-18900	IF Trans.
T904	or 4-256V-20000	IF Trans.
	4-256V-19000	IF Trans.
T905	or 4-256V-20100	IF Trans.
	4-256V-19100	IF Trans.
T906	4-256V-19200	IF Trans.
		(for Continent and England)
T906	4-256V-20400	IF Trans. (for Australia)
T907	or 4-256V-20200	IF Trans.
	4-256V-19300	IF Trans.
T908	or 4-256V-20200	IF Trans.
	4-256V-19300	IF Trans.
T909	or 4-256V-20300	IF Trans.
	4-256V-19400	IF Trans.
T910	or 4-256V-19500	IF Trans.
		(for Continent/Australia)
T910	4-256V-19700	IF Trans. (for England)

VARIABLE CAPACITORS

Schematic Location	Part No.	Description
VC1	4-224V-30600	20 pF
VC2	4-224V-30600	20 pF

DELAY LINES

Schematic Location	Part No.	Description
DL1	4-225V-15000	Delay Line
DL201	4-284V-11800	Delay Line, 0.2 micro-S
DL202	4-284V-11900	Delay Line, 0.6 micro-S
DL203	4-225V-15400	Delay Line
DL204	4-225V-15400	Delay Line
DL205	4-225V-15500	Delay Line

CRYSTALS

Schematic Location	Part No.	Description
X201	4-225V-15200	4.433619 MHz/16 pF
X202	4-225V-15300	4.433619 MHz/47 pF

VARIABLE RESISTORS

Schematic Location	Part No.	Description
VR1	4-222T-15800	470 ohms
VR2	4-222V-61704	500 ohms
VR3	4-222T-16000	47k ohms
VR4	4-222T-16000	47k ohms
VR5	4-222T-18800	1k ohms
VR6	4-222T-18800	1k ohms
VR7	4-222T-18900	2.2k ohms
VR8	4-222T-19300	4.7k ohms
VR101	4-222V-61710	50k ohms
VR102	4-222V-61710	50k ohms
VR103	4-222T-16100	100k ohms
VR104	4-222T-16000	47k ohms
VR105	4-222T-16000	47k ohms
VR106	4-222V-60200	470k ohms
VR107	4-222V-61708	10k ohms
VR201	4-222V-61707	5k ohms
VR202	4-222V-61706	2k ohms
VR203	4-222V-61707	5k ohms
VR204	4-222V-61715	3k ohms
VR205	4-222V-61705	1k ohms
VR206	4-222V-61707	5k ohms
VR207	4-222V-61707	5k ohms
VR208	4-222V-61709	20k ohms
VR209	4-222V-61708	10k ohms
VR210	4-222V-61706	2k ohms
VR211	4-222V-61704	500 ohms
VR212	4-222V-61705	1k ohms
VR213	4-222V-61705	1k ohms
VR214	4-222V-61705	1k ohms
VR215	4-222V-61713	500k ohms
VR216	4-222V-61706	2k ohms
VR217	4-222V-61705	1k ohms
VR218	4-222V-61705	1k ohms
VR219	4-222V-61705	1k ohms
VR220	4-222V-61708	10k ohms
VR601	4-222V-62201	22k ohms
VR602	or 4-222V-61902	20k ohms
	4-222V-62202	330k ohms
VR603	or 4-222V-62100	200k ohms
	4-222V-62201	22k ohms
VR604	or 4-222V-61902	20k ohms
	4-222V-61708	10k ohms
VR605	4-222V-61706	2k ohms
VR701	4-222V-61704	500 ohms
VR801	4-222T-16000	47k ohms
VR802	4-222T-24200	22k ohms
VR803	4-222T-24200	22k ohms
VR901	4-222V-61706	2k ohms
VR902	4-222V-61704	500 ohms
VR2001	4-222V-11800	Pre-set VR
VR2002	4-222V-11800	Pre-set VR
VR2003	4-222V-11800	Pre-set VR
VR2004	4-222V-11800	Pre-set VR
VR2005	4-222V-11800	Pre-set VR
VR2006	4-222V-11800	Pre-set VR
VR2007	4-222V-11800	Pre-set VR
VR2008	4-222V-11800	Pre-set VR

NOTE: 1. Parts order must contain Model Number, Part Number and Description.

## COILS

Schematic Location	Part No.	Description
L1	4-253V-83311	HF Choke, 6.8 micro-H, 10%
	or 4-253V-83211	HF Choke, 6.8 micro-H, 5%
L2	4-253V-83238	HF Choke, 1.2 milli-H, 5%
L3	4-253V-83226	HF Choke, 120 micro-H, 5%
L4	4-253V-83214	HF Choke, 12 micro-H, 5%
L5	4-253V-83214	HF Choke, 12 micro-H, 5%
L6	4-253V-84400	HF Choke, 10 milli-H, 5%
L7	4-253V-84400	HF Choke, 10 milli-H, 5%
L8	4-253V-83226	HF Choke, 120 micro-H, 5%
L9	4-253V-80700	HF Choke, 1.5 milli-H, 5%
L10	4-253V-83237	HF Choke, 1 milli-H, 5%
L11	4-253V-83309	HF Choke, 4.7 micro-H, 10%
	or 4-253V-83209	HF Choke, 4.7 micro-H, 5%
L12	4-253V-83213	HF Choke, 10 micro-H, 5%
L13	4-253V-83226	HF Choke, 120 micro-H, 5%
L14	4-253V-83237	HF Choke, 1 milli-H, 5%
L21	4-253V-83211	HF Choke, 82 micro-H, 5%
L201	4-253V-83210	HF Choke, 5.6 micro-H, 5%
L202	4-253V-83217	HF Choke, 22 micro-H, 5%
L204	4-253V-83227	HF Choke, 150 micro-H, 5%
L205	4-253V-83216	HF Choke, 18 micro-H, 5%
L207	4-253V-83233	HF Choke, 470 micro-H, 5%
L208	4-253V-83222	HF Choke, 56 micro-H, 5%
L209	4-253V-83209	HF Choke, 4.7 micro-H, 5%
L210	4-253V-83226	HF Choke, 120 micro-H, 5%
L211	4-253V-83226	HF Choke, 120 micro-H, 5%
L212	4-253V-83224	HF Choke, 82 micro-H, 5%
L213	4-253V-83211	HF Choke, 6.8 micro-H, 5%
L215	4-253V-83221	HF Choke, 47 micro-H, 5%
L216	4-253V-83212	HF Choke, 8.2 micro-H, 5%
L218	4-253V-83212	HF Choke, 8.2 micro-H, 5%
L219	4-253V-83212	HF Choke, 8.2 micro-H, 5%
L220	4-253V-83212	HF Choke, 8.2 micro-H, 5%
L221	4-253V-83223	HF Choke, 68 micro-H, 5%
L222	4-253V-83223	HF Choke, 68 micro-H, 5%
L223	4-253V-83218	HF Choke, 27 micro-H, 5%
L224	4-253V-83237	HF Choke, 1 milli-H, 5%
L225	4-253V-83223	HF Choke, 68 micro-H, 5%
L226	4-253V-83233	HF Choke, 470 micro-H, 5%
L227	4-253V-83233	HF Choke, 470 micro-H, 5%
L228	4-253V-83233	HF Choke, 470 micro-H, 5%
L229	4-253V-83233	HF Choke, 470 micro-H, 5%
L230	4-253V-89700	HF Choke, 4.7 milli-H
L231	4-253V-83227	HF Choke, 150 micro-H, 5%
L232	4-253V-83216	HF Choke, 18 micro-H, 5%
L233	4-253V-83219	HF Choke, 33 micro-H, 5%
L234	4-253V-83222	HF Choke, 56 micro-H, 5%
L235	4-253V-83216	HF Choke, 18 micro-H, 5%
L236	4-253V-83229	HF Choke, 220 micro-H, 5%
L237	4-253V-83228	HF Choke, 180 micro-H, 5%
L240	4-253V-83217	HF Choke, 22 micro-H, 5%
L241	4-253V-83233	HF Choke, 470 micro-H, 5%
L242	4-253V-83237	HF Choke, 1 milli-H, 5%
L248	4-253V-83223	HF Choke, 68 micro-H, 5%
L250	4-253V-83223	HF Choke, 68 micro-H, 5%
L601	4-253V-89303	HF Choke, 39 milli-H
L602	4-253V-84110	HF Choke, 560 micro-H
	or 4-253V-88900	HF Choke, 560 micro-H
L603	4-253V-89406	HF Choke, 27 milli-H
	or 4-253V-89600	HF Choke, 27 milli-H
L901	4-253V-83215	HF Choke, 15 micro-H, 5%
L902	4-253V-83312	HF Choke, 8.2 micro-H, 10%
L903	4-253V-83212	HF Choke, 18 micro-H, 5%
L904	4-253V-83312	HF Choke, 8.2 micro-H, 10%
L905	4-253V-83317	HF Choke, 220 micro-H, 10%
L1101	4-252V-10400	LF Choke

## MISCELLANEOUS

Schematic Location	Part No.	Description
	143-2-462T-12600	Shaft, Fixing Circuit Boards W1/W4/W5
	143-2-462T-12700	Shaft, Fixing Circuit Board W2
	143-2-161T-02500	Push Knob, W14 P.C.B, Channel Select
	143-2-681T-07800	Sleeve, for LED on W15 Circuit Board
	143-2-681T-07700	Sleeve, for LED on W20 Circuit Board
	143-2-164T-01200	Slide Knob, REC TIME & REC DAY Select
	143-2-161T-02600	Push Knob, CLOCK SET
DTN1601	4-202V-10900	Digital Display, W20 P.C.B.
F701	△ 4-234V-12510	Fuse 2.0A, W3 P.C.B.
F702	△ 4-234V-12510	Fuse 2.0A, W3 P.C.B.
F703	△ 4-234V-12503	Fuse 315 mA, W3 P.C.B.
	143-2-383T-01400	Fuse Holder, F701/F702/F703
F901	4-953V-00100	Trap, 5.5 MHz (for Continent and Australia)
F901	4-953V-00400	Trap, 6 MHz (for England)
F902	4-953V-00200	Filter, 5.5 MHz (for Continent and Australia)
	or 4-953V-00300	Filter, 5.5 MHz (for Continent and Australia)
F902	4-953V-00500	Filter, 6 MHz (for England)
F1101	△ 4-234V-12508	Fuse 1A, W7 P.C.B.
	143-2-383T-01400	Fuse Holder, F1101
F-1	4-228V-12600	Filter
RY601	4-232V-13700	Relay, W2 P.C.B.
RY1101	△ 4-232V-13601	Relay, W7 P.C.B.
CR1101	△ 4-227V-10900	CR Pack, 0.033mfd + 200 ohms

NOTE: 1. Parts order must contain Model Number, Part Number and Description.

## CONNECTORS (Mounted on Circuit Board)

Schematic Location	Part No.	Description
S1	4-235V-18212	Connector, Male 12-pin (Black)
S2	4-235V-12603	Connector, Male 3-pin (Natural)
S3	4-235V-13910	Connector, Male 10-pin (Natural)
S4	4-235V-12505	Connector, Male 5-pin (Natural)
S101	4-235V-12603	Connector, Male 3-pin (Natural)
S102	4-235V-18104	Connector, Male 4-pin (Red)
S103	4-235V-12507	Connector, Male 7-pin (Natural)
S104	4-235V-18003	Connector, Male 3-pin (Black)
S105	4-235V-12603	Connector, Male 3-pin (Natural)
S106	4-235V-18003	Connector, Male 3-pin (Black)
S107	4-235V-18103	Connector, Male 3-pin (Red)
S201	4-235V-13908	Connector, Male 8-pin (Natural)
S202	4-235V-13912	Connector, Male 12-pin (Natural)
S203	4-235V-18005	Connector, Male 5-pin (Black)
S601	4-235V-12603	Connector, Male 3-pin (Natural)
S602	4-235V-18003	Connector, Male 3-pin (Black)
S603	4-235V-13912	Connector, Male 12-pin (Natural)
S604	4-235V-18004	Connector, Male 4-pin (Black)
S605	4-235V-18103	Connector, Male 3-pin (Red)
S801	4-235V-13908	Connector, Male 8-pin (Natural)
S802	4-235V-12603	Connector, Male 3-pin (Natural)
S803	4-235V-18005	Connector, Male 5-pin (Black)
S804	4-235V-12606	Connector, Male 6-pin (Natural)
S805	4-235V-12605	Connector, Male 5-pin (Natural)
S806	4-235V-12604	Connector, Male 4-pin (Natural)
S807	4-235V-13907	Connector, Male 7-pin (Natural)
S901	4-235V-16200	RCA Pin Socket, Female
S902	4-235V-12603	Connector, Male 3-pin (Natural)
S903	4-235V-13906	Connector, Male 6-pin (Natural)
S904	4-235V-18104	Connector, Male 4-pin (Red)
S905	4-235V-12604	Connector, Male 4-pin (Natural)
S906	4-235V-18103	Connector, Male 3-pin (Red)
S907	4-235V-18003	Connector, Male 3-pin (Black)
S1101	⚠ 4-235V-20103	Connector, Male 3-pin
S1601	4-235V-12512	Connector, Male 12-pin
S1602	4-235V-12510	Connector, Male 10-pin
S1801	4-235V-19903	Connector, Male 3-pin
S1802	4-235V-20008	Connector, Male 8-pin
S1803	4-235V-20008	Connector, Male 8-pin
S2001	4-235V-13908	Connector, Male 8-pin

## THERMISTORS

Schematic Location	Part No.	Description
TH101		TD5-C230, 3k ohms with Tube
TH201		TD5-C230D, 3k ohms
TH901		TD5-A110, 100 ohms

## SWITCHES

Schematic Location	Part No.	Description
SW1	4-231V-13401	R-P Switch, Slide
SW101	4-231V-13401	R-P Switch, Slide
SW601	4-231V-14500	R-P Switch, Slide
SW1001	4-231V-91900	Leaf Switch, PAUSE
SW1002	4-231V-91900	Leaf Switch, REW
SW1003	4-231V-91900	Leaf Switch, F.FWD
SW1004	4-231V-93500	Leaf Switch, PLAY
SW1005	4-231V-91900	Leaf Switch, REC
SW1006	4-231V-91900	Leaf Switch, EJECT
SW1601	4-231V-14800	REC TIME Select Switch
SW1602	4-231V-91100	CLOCK SET Switch
SW1603	4-231V-91100	TIMER SET Switch
SW1604	4-231V-91100	HOUR SET Switch
SW1605	4-231V-91100	MIN. SET Switch
SW1606	4-231V-91100	CLOCK/COUNT Select Switch
SW1607	4-231V-14900	REC DAY Select Switch
SW1801	4-231V-61400	Channel Select Switch

**NOTE:** 1. Parts order must contain Model Number, Part Number and Description.

**CONNECTORS (Mounted on Circuit Board)**

Schematic Location	Part No.	Description
S1	4-235V-18212	Connector, Male 12-pin (Black)
S2	4-235V-12603	Connector, Male 3-pin (Natural)
S3	4-235V-13910	Connector, Male 10-pin (Natural)
S4	4-235V-12505	Connector, Male 5-pin (Natural)
S101	4-235V-12603	Connector, Male 3-pin (Natural)
S102	4-235V-18104	Connector, Male 4-pin (Red)
S103	4-235V-12507	Connector, Male 7-pin (Natural)
S104	4-235V-18003	Connector, Male 3-pin (Black)
S105	4-235V-12603	Connector, Male 3-pin (Natural)
S106	4-235V-18003	Connector, Male 3-pin (Black)
S107	4-235V-18103	Connector, Male 3-pin (Red)
S201	4-235V-13908	Connector, Male 8-pin (Natural)
S202	4-235V-13912	Connector, Male 12-pin (Natural)
S203	4-235V-18005	Connector, Male 5-pin (Black)
S601	4-235V-12603	Connector, Male 3-pin (Natural)
S602	4-235V-18003	Connector, Male 3-pin (Black)
S603	4-235V-13912	Connector, Male 12-pin (Natural)
S604	4-235V-18004	Connector, Male 4-pin (Black)
S605	4-235V-18103	Connector, Male 3-pin (Red)
S801	4-235V-13908	Connector, Male 8-pin (Natural)
S802	4-235V-12603	Connector, Male 3-pin (Natural)
S803	4-235V-18005	Connector, Male 5-pin (Black)
S804	4-235V-12606	Connector, Male 6-pin (Natural)
S805	4-235V-12605	Connector, Male 5-pin (Natural)
S806	4-235V-12604	Connector, Male 4-pin (Natural)
S807	4-235V-13907	Connector, Male 7-pin (Natural)
S901	4-235V-16200	RCA Pin Socket, Female
S902	4-235V-12603	Connector, Male 3-pin (Natural)
S903	4-235V-13906	Connector, Male 6-pin (Natural)
S904	4-235V-18104	Connector, Male 4-pin (Red)
S905	4-235V-12604	Connector, Male 4-pin (Natural)
S906	4-235V-18103	Connector, Male 3-pin (Red)
S907	4-235V-18003	Connector, Male 3-pin (Black)
S1101	△ 4-235V-20103	Connector, Male 3-pin
S1601	4-235V-12512	Connector, Male 12-pin
S1602	4-235V-12510	Connector, Male 10-pin
S1801	4-235V-19903	Connector, Male 3-pin
S1802	4-235V-20008	Connector, Male 8-pin
S1803	4-235V-20008	Connector, Male 8-pin
S2001	4-235V-13908	Connector, Male 8-pin

**THERMISTORS**

Schematic Location	Part No.	Description
TH101		TD5-C230, 3k ohms with Tube
TH201		TD5-C230D, 3k ohms
TH901		TD5-A110, 100 ohms

**SWITCHES**

Schematic Location	Part No.	Description
SW1	4-231V-13401	R-P Switch, Slide
SW101	4-231V-13401	R-P Switch, Slide
SW601	4-231V-14500	R-P Switch, Slide
SW1001	4-231V-91900	Leaf Switch, PAUSE
SW1002	4-231V-91900	Leaf Switch, REW
SW1003	4-231V-91900	Leaf Switch, F.FWD
SW1004	4-231V-93500	Leaf Switch, PLAY
SW1005	4-231V-91900	Leaf Switch, REC
SW1006	4-231V-91900	Leaf Switch, EJECT
SW1601	4-231V-14800	REC TIME Select Switch
SW1602	4-231V-91100	CLOCK SET Switch
SW1603	4-231V-91100	TIMER SET Switch
SW1604	4-231V-91100	HOUR SET Switch
SW1605	4-231V-91100	MIN. SET Switch
SW1606	4-231V-91100	CLOCK/COUNT Select Switch
SW1607	4-231V-14900	REC DAY Select Switch
SW1801	4-231V-61400	Channel Select Switch

**NOTE: 1. Parts order must contain Model Number, Part Number and Description.**



# TRANSISTORS, INTEGRATED CIRCUITS & FET's

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
Q1		2SC536E or 2SC536F	Q253		2SC1634-8
Q2		2SC2209R	Q254		2SC930E
Q3		2SC16347	Q255		2SA719Q
Q4		FET, 2SK68A-M	Q256		2SC930E
Q5		FET, 2SK68A-M	Q257		2SA719Q
Q7		2SC536E or 2SC536F	Q258		2SC930E
Q8		IC, CX-134A	Q259		2SC930E
Q9		2SC930E	Q260		2SC930E
Q10		2SC536E or 2SC536F	Q261		2SC1634-8
Q11		2SC536E or 2SC536F	Q262		2SC1634-8
Q12		2SC536E or 2SC536F	Q263		2SC1634-8
Q13		2SC536E	Q264		2SC1634-8
Q101		IC, CX-138	Q265		2SC930E
Q102		IC, CX-139A	Q266		2SC1634-8
Q103		2SC1740LNR or 2SC1470LNS	Q267		2SC930E
Q104		2SC536E or 2SC536F	Q601		IC, LA3210
Q105		2SC536E or 2SC536F	Q602		IC, TA7140
Q106		2SD330E	Q603		IC, $\mu$ PC566H3
Q107		2SC536E	Q604		2SC536E
Q201		IC, CX-131A	Q605		2SC536E
Q202		IC, CX-136A	Q606		2SD438E
Q203		IC, CX-150	Q607		2SC536E
Q204		IC, CX-150	Q608		2SC536E
Q205		IC, CX-137A	Q701		2SC1741R
Q206		IC, CX-137A	Q702		2SC1826O or 2SC1826Y or 2SC1826G
Q207		IC, CX-130	Q703		2SC1741R
Q208		IC, SN74LS93N	Q704		2SC1741R
Q209		IC, SN74LS74N	Q705		2SC1741R
Q210		IC, SN74LS93N	Q706		SCR, CR02AM
Q211		IC, SN74LS10N or DM74LS10N	Q707		IC, FS7815M, Regulator or IC, $\mu$ PC78M15H, Regulator
Q212		IC, CX-145	Q801		2SD313E
Q213		IC, CX-135	Q802		2SD400E
Q214		IC, TC4069P	Q803		2SC536E
Q215		IC, CX-130	Q804		2SC536E
Q216		2SA838C	Q805		2SC536E
Q217		2SA838C	Q806		IC, TA7504S
Q218		2SC930E	Q807		2SD545E
Q219		2SC930E	Q808		2SA562Y
Q220		2SC930E	Q809		2SC536E
Q221		2SA564 or 2SA838	Q810		2SB507E
Q222		2SC1634-8	Q811		2SD545E
Q223		2SC930E	Q812		2SD545E
Q224		2SC930E	Q813		IC, CX-141
Q225		2SC1634-8	Q814		2SC545E
Q226		2SC1634-8	Q815		2SC536E
Q227		2SC1634-8	Q816		2SD313E
Q228		2SC1634-8	Q817		2SD545E
Q229		2SC1634-8	Q819		2SA562Y
Q230		2SC1634-8	Q901		2SC382W
Q231		2SC930E	Q902		2SC382W
Q232		2SC930E	Q903		IC, TA7174P
Q233		2SC930E	Q904		2SC945R or 2SC536E
Q234		2SC930E	Q905		2SC388A
Q235		2SC1634-8	Q906		IC, AN240P
Q236		2SC930E	Q907		2SC945R or 2SC536E
Q237		2SC930E	Q908		2SC945R or 2SC536E
Q238		2SC930E	Q909		2SC1634-8
Q240		2SC1634-8	Q910		2SC945R or 2SC536E
Q241		2SC930E	Q911		2SA509Y
Q242		2SC930E	Q1010		Photo Transistor, PN150
Q243		2SC930E	Q1601		2SA786R
Q244		2SC930E	Q1602		2SA786R
Q245		2SA608E	Q1603		2SA786R
Q246		2SC1634-8	Q1604		2SA786R
Q247		2SA608E	Q1605		2SC2021R
Q248		2SA608E	Q1606		2SC2021R
Q249		2SA608E	Q1607		2SC2021R
Q250		2SC930E	Q1608		2SA786R
Q251		2SC1634-8			
Q252		2SC1634-8			

## TRANSISTORS, INTEGRATED CIRCUITS &amp; FIT's

## DIODES

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
Q1609		2SC2021R	D1		1S1555
Q1610		2SC2021R	D2		1S1555
Q1611		2SC2021R	D3		1S1555
Q1612		2SC2021R	D4		1S2473
Q1613		2SA786R	D101		1S1555
Q1614		2SC2021R	D102		1S1555
Q1615		2SC2021R	D201		1S1555
Q1617		IC, MP2721 (Micro Processor)	D202		1S1555
Q1618		IC, TP4013AN	D203		1S1555
Q1619		IC, $\mu$ PC78L05, Regulator	D204		1S1555
Q1620		IC, SN7400N	D205		1S1555
Q1621		IC, SN74LS73	D206		1S1555
Q2001		2SC945Q	D207		1S1555
Q2002		2SC945Q	D208		1S1555
Q2003		2SA733Q	D209		1S1555
			D210		1S1555
			D211		1S1555
			D212		1S1555
			D213		1S1555
			D214		1S1555
			D215		1S1555
			D216		1S1555
			D217		1S1555
			D218		1S1555
			D219		1S1555
			D220		1S1555
			D222		1S1555
			D601		1S1555
			D602		1S1555
			D701	△	ERC0102
			D702	△	ERC0102
			D703	△	1B4B41
			D704	△	ERB12-01G
			D705		ERB12-01G
			D706		ERB12-01G
			D707		Zener, RD3.3EB or WZ034
			D708		ERB12-01G
			D709		ERB12-01G
			D710		ERB12-01G
			D711		SIB0102
			D712		Zener, RD6.2EB or WZ061
			D801		1SR34-200 or ERB12-02
			D802		1SR34-200 or ERB12-02
			D803		1S2473
			D804		1S2473
			D805		1S2473
			D806		1S2473
			D807		1S2473
			D808		1S2473
			D809		1SR34-200 or ERB12-02
			D810		1SR34-200 or ERB12-02
			D811		Zener, RD6.2EB
			D812		1SR34-200 or ERB12-02
			D813		1SR34-200 or ERB12-02
			D814		ERB12-02 or 1SR34-200
			D815		1SR34-200 or ERB12-02
			D816		1S2473
			D817		1SR34-200 or ERB12-02
			D818		1S2473
			D819		1S2473
			D820		1SR34-200 or ERB12-02
			D821		1SR34-200 or ERB12-02
			D822		1S2473
			D823		1S2473
			D901		1S2473
			D1001		1SR34-200 or ERB12-02
			D1002		1SR34-200 or ERB12-02
			D1003		1SR34-200 or ERB12-02
			D1004		1SR34-200 or ERB12-02

## DIODES

## RESISTORS

All resistors are of carbon type,  $\pm 5\%$ , 1/4 watt unless otherwise noted.

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
D1005		1SR34-200 or ERB12-02			All resistors are of carbon type, $\pm 5\%$ , 1/4W unless otherwise noted.
D1006		1SR34-200 or ERB12-02			
D1007		1SR34-200 or ERB12-02			
D1011		LED, LN55	R1		10k ohms
D1101		RM1ZLF	R2		10k ohms
D1601		1S2473	R3		620 ohms
D1602		1S2473	R4		1k ohms
D1603		1S2473	R5		3.9k ohms
D1604		1S2473	R6		30 ohms
D1605		1S2473	R7		100 ohms
D1606		1S2473	R8		15 ohms
D1607		1S2473	R9		18 ohms
D1608		1S2473	R10		30 ohms
D1609		1S2473	R11		330 ohms
D1610		1S2473	R12		330 ohms
D1611		1S2473	R13		300 ohms
D1612		1S2473	R14		620 ohms
D1613		1S2473	R15		2.2k ohms
D1614		Zener, WZ030	R16		30 ohms
D1615		Zener, XZ094	R17		10 ohms
D1616		1S2473	R18		10 ohms
D1617		1S2473	R19		Metal Glaze, 10 ohms, 1W
D1618		Zener, XZ084	R20		470 ohms
D1619		LED, GL9PR2	R21		1.5k ohms
D1620		1S2473	R22		3.3k ohms
D1621		LED, GL9PR2	R23		22k ohms
D1622		LED, GL9PR2	R24		470 ohms
D1623		1S2473	R25		1.5k ohms
D1624		1S2473	R26		220 ohms
D1851		LED, GL9PR2	R27		6.8 ohms
D1852		LED, GL9PR2	R28		680 ohms
D1853		LED, GL9PR2	R29		680 ohms
D1854		LED, GL9PR2	R30		560 ohms
D1855		LED, GL9PR2	R35		390 ohms
D1856		LED, GL9PR2	R36		1k ohms
D1857		LED, GL9PR2	R38		220 ohms
D1858		LED, GL9PR2	R39		470 ohms
D2001		1S2473	R40		3.3k ohms
D2002		1S2473	R41		1.2k ohms
D2003		1S2473	R42		10k ohms
D2004		1S2473	R43		33k ohms
D2005		1S2473	R44		5.6k ohms
D2006		1S2473	R45		27k ohms
D2007		1S2473	R46		220 ohms
D2008		1S2473	R47		1.2k ohms
D2009		1S2473	R48		22 ohms
D2010		1S2473	R49		680 ohms
D2011		1S2473	R50		680 ohms
D2012		Zener, $\mu$ PC574J	R51		100 ohms
D2051		ERB12-01G	R52		390 ohms
D2052		ERB12-01G	R53		2.2k ohms
			R54		390 ohms
			R55		100 ohms
			R56		1k ohms
			R57		100 ohms
			R58		620 ohms
			R59		1k ohms
			R60		5.6k ohms
			R62		1.5k ohms
			R63		1.5k ohms
			R64		100 ohms
			R65		100 ohms
			R67		750 ohms
			R68		3.3k ohms
			R72		1k ohms

# RESISTORS

All resistors are of carbon type,  $\pm 5\%$ , 1/4 watt unless otherwise noted.

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
R73		220 ohms	R230		27k ohms
R74		33k ohms	R231		3.3k ohms
R101		82k ohms	R232		2.7k ohms
R102		33k ohms	R233		68k ohms
R103		33k ohms	R234		47k ohms
R104		33k ohms	R235		560 ohms
R105		47k ohms	R236		1.2k ohms
R106		33k ohms	R237		1.5k ohms
R107		5.6k ohms	R238		10k ohms
R108		1k ohms	R239		1.5k ohms
R109		120 ohms	R240		820 ohms
R110		10k ohms	R241		3.3k ohms
R111		3.3k ohms	R242		820 ohms
R112		1.8k ohms	R243		220 ohms
R113		1k ohms	R244		270 ohms
R114		39k ohms	R245		10k ohms
R115		51k ohms	R246		1k ohms
R116		4.7k ohms	R247		220k ohms
R117		4.7k ohms	R248		1k ohms
R118		1k ohms	R249		1.2k ohms
R119		27k ohms	R250		2.2k ohms
R120		33k ohms	R251		22k ohms
R121		5.6k ohms	R252		22k ohms
R122		33k ohms	R253		22k ohms
R123		62k ohms	R254		22k ohms
R124		100k ohms	R255		22k ohms
R125		2.2k ohms	R256		220k ohms
R126		3.9k ohms	R257		27k ohms
R127		8.2k ohms	R258		5.6k ohms
R128		5.6k ohms	R259		33k ohms
R129		56 ohms	R260		4.7k ohms
R130		100k ohms	R261		100k ohms
R131		82k ohms	R263		56k ohms
R132		470k ohms	R264		5.6k ohms
R133		6.8k ohms	R265		15k ohms
R134		1.5k ohms	R266		15k ohms
R135		2.2k ohms	R267		220k ohms
R136		3.3m ohms	R268		4.7k ohms
R137		33k ohms	R269		220k ohms
R138		33k ohms	R271		1k ohms
R139		330 ohms	R272		56k ohms
R201		270 ohms	R273		10k ohms
R202		1k ohms	R274		330 ohms
R203		1k ohms	R275		220 ohms
R204		100 ohms	R276		15k ohms
R205		3.3k ohms	R277		10k ohms
R206		1.5k ohms	R278		56 ohms
R207		22k ohms	R279		390 ohms
R208		8.2k ohms	R280		1.5k ohms
R209		820 ohms	R281		1.2k ohms
R210		390 ohms	R282		22k ohms
R211		2.2k ohms	R283		10k ohms
R212		22k ohms	R284		10k ohms
R213		22k ohms	R285		22k ohms
R214		330 ohms	R286		1.5k ohms
R215		160 ohms	R287		470 ohms
R216		10k ohms	R288		1k ohms
R217		4.7k ohms	R289		22k ohms
R218		470 ohms	R290		4.7k ohms
R219		150 ohms	R291		390 ohms
R220		270 ohms	R292		390 ohms
R221		1.6k ohms	R293		390 ohms
R222		10k ohms	R294		22k ohms
R223		15k ohms	R295		4.7k ohms
R224		1.5k ohms	R296		2.2k ohms
R225		39k ohms	R297		390 ohms
R226		6.8k ohms	R298		390 ohms
R227		33 ohms	R299		390 ohms
R228		24k ohms	R300		390 ohms
R229		27k ohms	R301		2.2k ohms

# RESISTORS

All resistors are of carbon type,  $\pm 5\%$ , 1/4 watt unless otherwise noted.

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
R302		390 ohms	R375		12k ohms
R304		30k ohms	R376		10k ohms
R305		18k ohms	R377		100k ohms
R306		680 ohms	R378		1k ohms
R307		510 ohms	R379		10k ohms
R308		3.3k ohms	R380		33k ohms
R309		10k ohms	R381		1.8m ohms
R310		750 ohms	R382		1.5m ohms
R311		4.7k ohms	R383		330 ohms
R312		1.8k ohms	R384		2.2k ohms
R313		330 ohms	R385		4.7k ohms
R314		2.2k ohms	R386		4.7k ohms
R315		22k ohms	R387		3.3k ohms
R316		10k ohms	R388		560 ohms
R317		470 ohms	R389		560 ohms
R318		1.5k ohms	R390		330 ohms
R319		4.7k ohms	R391		1k ohms
R320		100 ohms	R392		100 ohms
R321		1k ohms	R393		3.3k ohms
R322		1.2k ohms	R394		1.8k ohms
R323		820 ohms	R395		1.5k ohms
R324		1k ohms	R396		270 ohms
R325		56k ohms	R397		820 ohms
R326		10k ohms	R398		150 ohms
R327		8.2k ohms	R399		2.2k ohms
R328		3.3k ohms	R400		390 ohms
R329		10k ohms	R401		39k ohms
R330		56k ohms	R402		15k ohms
R331		680 ohms	R403		330 ohms
R332		1k ohms	R404		160 ohms
R333		6.8k ohms	R405		10k ohms
R334		5.6k ohms	R406		22k ohms
R335		2.2k ohms	R407		1k ohms
R336		3.3k ohms	R408		1.5k ohms
R337		39k ohms	R409		1.5k ohms
R338		10k ohms	R410		3.9k ohms
R339		5.1k ohms	R411		1.5k ohms
R340		1.8k ohms	R412		3.3k ohms
R341		10k ohms	R413		3.3k ohms
R342		1k ohms	R414		3.3k ohms
R343		22k ohms	R415		1k ohms
R344		15k ohms	R416		2.2k ohms
R345		6.8k ohms	R417		1.5k ohms
R346		3.3k ohms	R418		4.7k ohms
R347		3.3k ohms	R419		750 ohms
R348		56 ohms	R420		240 ohms
R350		7.5k ohms	R421		1k ohms
R351		4.7k ohms	R422		1k ohms
R352		100 ohms	R423		15k ohms
R353		6.8k ohms	R424		47k ohms
R354		100k ohms	R425		680 ohms
R355		15k ohms	R426		2.2k ohms
R356		15k ohms	R427		1k ohms
R357		6.8k ohms	R428		68 ohms
R358		3.3k ohms	R429		10k ohms
R359		220k ohms	R432		240 ohms
R360		470 ohms	R433		33k ohms
R361		1k ohms	R434		33k ohms
R362		150k ohms	R436		75 ohms
R363		470 ohms	R437		750 ohms
R364		18k ohms	R438		1.5k ohms
R365		68k ohms	R439		7.5k ohms
R367		3.3k ohms	R440		7.5k ohms
R368		56k ohms	R441		820k ohms
R369		1k ohms	R442		24k ohms
R370		470 ohms	R443		5.1k ohms
R371		270 ohms	R444		13k ohms
R372		100 ohms	R445		220 ohms
R373		15k ohms	R446		10k ohms
R374		1k ohms	R447		4.7k ohms

# RESISTORS

All resistors are of carbon type,  $\pm 5\%$ , 1/4 watt unless otherwise noted.

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
R448		1k ohms	R709		22k ohms
R449		2.2k ohms	R710		47k ohms
R450		3.3k ohms	R711		6.8k ohms
R452		330 ohms	R712		6.8k ohms
R453		560 ohms	R713		5.6k ohms
R454		1.5k ohms	R714		5.6k ohms
R455		12k ohms	R715		1k ohms
R456		24k ohms	R716		820 ohms
R457		10k ohms	R717		10k ohms
R458		820 ohms	R718		5.6k ohms
R459		1.5k ohms	R719		Metal Glaze, 18 ohms, 1W
R460		1k ohms	R801		Wire-wound, 10 ohms, 10%, 10W
R461		1k ohms	R802		1k ohms
R462		1.2k ohms	R803		330 ohms
R464		22k ohms	R804		1k ohms
R465		4.7k ohms	R805		1k ohms
R466		1k ohms	R806		5.6k ohms
R467		470 ohms	R807		33k ohms
R468		1k ohms	R808		33k ohms
R601		100k ohms	R809		27k ohms
R602		39k ohms	R810		12k ohms
R603		150k ohms	R811		33k ohms
R604		12k ohms	R812		120k ohms
R605		6.8k ohms	R813		100k ohms
R606		150k ohms	R814		6.8k ohms
R607		10k ohms	R815		47k ohms
R608		2.2k ohms	R816		1k ohms
R609		4.7k ohms	R817		4.7k ohms
R610		1k ohms	R818		47k ohms
R611		12k ohms	R819		2.2k ohms
R612		56k ohms	R820		10k ohms
R613		6.2k ohms	R821		100k ohms
R614		120k ohms	R822		220k ohms
R615		68k ohms	R823		2.2k ohms
R616		10k ohms	R824		22k ohms
R617		1k ohms	R825		150k ohms
R618		100 ohms	R826		150k ohms
R619		1k ohms	R828		22k ohms
R620		100 ohms	R829		100 ohms
R621		12k ohms	R830		100k ohms
R623		270 ohms	R831		330 ohms
R625		68k ohms	R832		Metal Glaze, 30 ohms, 10%, 2W
R626		27k ohms			or Wire-wound, 30 ohms, 10%, 2W
R628		330k ohms	R833		330 ohms
R629		68k ohms	R834		33k ohms
R630		5.6k ohms	R835		47k ohms
R631		1k ohms	R836		33k ohms
R632		100 ohms	R838		680 ohms
R633		18k ohms	R840		4.7K ohms
R634		27k ohms	R841		4.7k ohms
R635		56 ohms	R842		3.3k ohms
R636		100 ohms	R844		68k ohms
R637		10k ohms	R845		33k ohms
R638		56k ohms	R847		10k ohms
R639		Metal Glaze, 2.2 ohms, 1/2W	R848		3.3k ohms
R640		15k ohms	R849		10k ohms
R641		300k ohms	R850		390 ohms
R642		10 ohms	R851		220 ohms
R643		2.2k ohms	R852		4.7k ohms
R644		680 ohms	R853		100k ohms
R645		6.8k ohms	R856		10k ohms
R701		100 ohms	R857		1k ohms
R702		22 ohms	R901		1k ohms
R703		2.2k ohms	R902		330 ohms
R704		2.2k ohms	R903		1k ohms
R705		100 ohms	R904		3.9k ohms
R706		1k ohms	R905		1k ohms
R707		1k ohms	R906		1k ohms
R708		1.5k ohms	R907		820 ohms



# RESISTORS

All resistors are of carbon type,  $\pm 5\%$ , 1/4 watt unless otherwise noted.

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
R908		1.8k ohms	R1619		10k ohms
R909		150 ohms	R1620		33k ohms
R910		4.7k ohms	R1621		6.8k ohms
R911		390 ohms	R1622		5.6k ohms
R912		1.8k ohms	R1623		680 ohms
R913		270k ohms	R1624		68k ohms
R914		6.8k ohms	R1625		10k ohms
R915		10k ohms	R1626		5.6k ohms
R916		150 ohms	R1627		10k ohms
R917		47k ohms	R1628		100k ohms
R918		150 ohms	R1629		1k ohms
R919		150 ohms	R1630		5.6k ohms
R920		1k ohms	R1631		330 ohms
R921		820 ohms	R1632		10k ohms
R922		100 ohms	R1633		10k ohms
R923		180 ohms	R1634		5.1k ohms
R924		100k ohms	R1635		100k ohms
R925		100k ohms	R1636		15k ohms, 1/8W
R926		68k ohms	R1637		150 ohms
R927		10k ohms	R1638		47k ohms
R928		3.9k ohms	R1639		10k ohms
R929		1k ohms	R1640		10k ohms
R930		6.8k ohms	R1641		10k ohms
R931		22k ohms	R1642		10k ohms
R932		1.1k ohms	R1643		10k ohms, 1/8W
R933		680 ohms	R1644		680 ohms
R934		3.3k ohms	R1645		680 ohms
R935		10k ohms	R1646		12k ohms
R936		6.8k ohms	R1647		10k ohms
R937		1.5k ohms	R1648		100k ohms
R938		3.3k ohms	R1649		10k ohms
R939		1.5k ohms	R1650		5.6k ohms
R940		100 ohms	R1651		10k ohms
R941		270 ohms	R1652		10k ohms
R942		56 ohms	R1653		3.3k ohms
R943		22k ohms	R1654		3.3k ohms
R944		3.3k ohms	R1655		3.3k ohms, 1/8W
R945		2.2k ohms	R1656		10k ohms
R946		10k ohms	R1657		100k ohms
R947		270 ohms	R1658		100k ohms (for Australia only)
R948		3.3k ohms	R2001		1.8k ohms
R1001		2.7k ohms	R2002		1.2k ohms
R1004		2.7k ohms	R2003		22k ohms
R1005		390 ohms	R2004		10k ohms
R1201		22k ohms	R2005		3.3k ohms
R1202		47k ohms	R2006		100k ohms
R1204		68 ohms	R2007		1M ohms
R1205		470 ohms	R2008		22k ohms
R1206		110k ohms	R2009		3.3k ohms
R1208		75 ohms	R2010		10k ohms
R1209		82 ohms	R2011		2.2k ohms
R1210		1k ohms	R2012		270k ohms
R1601		10k ohms	R2051		3.3k ohms, 1/2W
R1602		10k ohms			
R1603		22k ohms			
R1604		100k ohms			
R1605		10k ohms			
R1606		100k ohms			
R1607		10k ohms			
R1608		5.6k ohms			
R1609		68k ohms			
R1610		100k ohms, 1/8W			
R1611		100k ohms			
R1612		100k ohms, 1/8W			
R1613		100k ohms			
R1614		22k ohms			
R1615		10k ohms			
R1616	4-227V-11100				
R1617	4-227V-11100				
R1618	4-227V-11100				

# CAPACITORS

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
C1		BL Ceramic, 0.047 mfd 20%, 25V	C127		Mylar, 1000 pF 10%, 50V
C2		BL Ceramic, 0.047 mfd 20%, 25V	C128		Solid Aluminum, 0.47 mfd 20%, 16V
C3		Electrolytic, 47 mfd, 16V			
C4		BL Ceramic, 0.01 mfd 20%, 25V	C129		Mylar, 0.1 mfd 10%, 50V
C5		Electrolytic, 10 mfd, 16V	C130		Solid Aluminum, 0.68 mfd 20%, 16V
C6		BL Ceramic, 0.047 mfd 20%, 25V			
C7		BL Ceramic, 0.047 mfd 20%, 25V	C131		Electrolytic, 2.2 mfd 20%, 50V
C8		Electrolytic, 10 mfd, 16V	C132		Electrolytic, 47 mfd, 16V
C9		BL Ceramic, 0.047 mfd 20%, 25V	C133		BL Ceramic, 0.047 mfd 10%, 25V
C10		BL Ceramic, 0.047 mfd 20%, 25V	C134		Non Polarized Electrolytic, 1 mfd 30%, 25V
C11		BL Ceramic, 0.01 mfd 20%, 25V			
C12		BL Ceramic, 0.047 mfd 20%, 25V	C135		Mylar, 6800 pF 10%, 50V
C13		Electrolytic, 10 mfd, 16V	C136		Mylar, 0.1 mfd 10%, 50V
C14		BL Ceramic, 0.047 mfd 20%, 25V	C137		Mylar, 0.01 mfd 10%, 50V
C15		BL Ceramic, 0.01 mfd 20%, 25V	C138		Mylar, 0.047 mfd 10%, 50V
C16		BL Ceramic, 0.047 mfd 20%, 25V	C139		Mylar, 0.022 mfd 10%, 50V
C17		Ceramic, 120 pF 5%, 50V (SL)	C201		Ceramic, 24 pF 5%, 50V (SL)
C18		Ceramic, 120 pF 5%, 50V (SL)	C202		Ceramic, 820 pF 5%, 50V (SL)
C24		BL Ceramic, 0.047 mfd 20%, 25V	C203		Ceramic, 91 pF 5%, 50V (SL)
C25		Electrolytic, 10 mfd, 16V	C204		BL Ceramic, 0.047 mfd 20%, 50V
C26		Ceramic, 5600 pF 10%, 50V (YB)	C205		BL Ceramic, 0.047 mfd 20%, 50V
C27		Ceramic, 470 pF 10%, 50V (B)	C206		Ceramic, 180 pF 5%, 50V (SL)
C28		BL Ceramic, 0.01 mfd 20%, 25V	C207		Ceramic, 430 pF 5%, 50V (SL)
C29		BL Ceramic, 0.047 mfd 20%, 25V	C208		Ceramic, 1000 pF 5%, 50V (SL)
C30		Ceramic, 330 pF 10%, 50V (B)	C209		Tantalum, 10 mfd 10%, 16V
C32		Electrolytic, 10 mfd, 16V	C210		Ceramic, 100 pF 5%, 50V (SL)
C33		BL Ceramic, 0.047 mfd 20%, 25V	C211		Electrolytic, 47 mfd, 16V
C34		BL Ceramic, 0.01 mfd 20%, 25V	C213		Ceramic, 0.1 mfd 10%, 50V
C35		Electrolytic, 1 mfd, 25V	C214		Electrolytic, 4.7 mfd, 25V
C36		BL Ceramic, 0.047 mfd 20%, 25V	C215		Ceramic, 0.01 mfd 20%, 50V (SL)
C37		BL Ceramic, 0.01 mfd 20%, 25V	C216		Ceramic, 470 pF 5%, 50V (SL)
C38		Ceramic, 120 pF 5%, 50V (SL)	C217		Electrolytic, 4.7 mfd, 25V
C39		BL Ceramic, 0.047 mfd 20%, 25V	C218		Ceramic, 0.01 mfd 20%, 50V (SL)
C40		BL Ceramic, 0.047 mfd 20%, 25V	C219		Electrolytic, 470 mfd, 6.3V
C41		Electrolytic, 1 mfd, 25V	C220		Electrolytic, 100 mfd, 10V
C51		Ceramic, 56 pF 5%, 50V (SL)	C221		Ceramic, 120 pF 5%, 50V (SL)
C53		Ceramic, 680 pF 10%, 50V (B)	C223		Ceramic, 240 pF 5%, 50V (SL)
C54		Ceramic, 200 pF 5%, 50V (SL)	C224		Ceramic, 56 pF 5%, 50V (SL)
C55		Ceramic, 680 pF 5%, 50V (SL)	C225		Ceramic, 390 pF 5%, 50V (SL)
C101		Electrolytic (Small type), 47 mfd, 16V	C226		Ceramic, 18 pF 5%, 50V (SL)
			C227		Ceramic, 0.01 mfd 20%, 50V (SL)
C102		Mylar, 0.022 mfd 10%, 50V	C228		Ceramic, 0.01 mfd 20%, 50V (SL)
C103		Mylar, 0.022 mfd 10%, 50V	C229		Electrolytic, 10 mfd, 10V
C104		BL Ceramic, 0.047 mfd 10%, 25V	C230		Electrolytic, 4.7 mfd, 25V
C105		Ceramic, 0.01 mfd 20%, 25V, (SL)	C231		Electrolytic, 4.7 mfd, 25V
C106		Ceramic, 0.01 mfd 20%, 25V (SL)	C232		BL Ceramic, 0.047 mfd 20%, 50V
C107		BL Ceramic, 0.047 mfd 10%, 25V	C233		Electrolytic, 47 mfd, 16V
C108		Solid Aluminum, 0.47 mfd 20%, 16V	C234		BL Ceramic, 0.047 mfd 20%, 50V
			C235		BL Ceramic, 0.047 mfd 20%, 50V
C109		Mylar, 0.022 mfd 10%, 50V	C236		Electrolytic, 10 mfd, 16V
C110		Electrolytic, 47 mfd, 10V	C237		BL Ceramic, 0.022 mfd 30%, 16V (X)
C111		Ceramic, 0.01 mfd 20%, 25V (SL)			
C112		Ceramic, 4700 pF 20%, 25V (SL)	C238		Tantalum, 1.5 mfd 10%, 20V
C113		Electrolytic, 100 mfd, 10V	C239		Ceramic, 56 pF 5%, 50V (SL)
C114		Electrolytic, 47 mfd, 16V	C240		Ceramic, 470 pF 5%, 50V (SL)
C115		Electrolytic (Small type), 33 mfd, 25V	C241		Ceramic, 220 pF 5%, 50V (SL)
			C242		Ceramic, 0.01 mfd 20%, 50V (SL)
C116		Electrolytic, 220 mfd, 6.3V	C243		Tantalum, 2.2 mfd 10%, 20V
C117		Solid Aluminum, 0.1 mfd 20%, 16V	C244		BL Ceramic, 0.022 mfd 20%, 50V
			C245		BL Ceramic, 0.047 mfd 20%, 50V
C118		Electrolytic, 47 mfd, 16V	C246		Ceramic, 0.01 mfd 20%, 50V (SL)
C119		Electrolytic, 10 mfd, 16V	C247		Electrolytic, 47 mfd, 16V
C120		Mylar, 0.068 mfd 10%, 50V	C248		BL Ceramic, 0.047 mfd 20%, 50V
C121		Ceramic, 0.01 mfd 20%, 25V (SL)	C249		Ceramic, 0.01 mfd 20%, 50V (SL)
C122		Ceramic, 0.01 mfd 20%, 25V (SL)	C250		Ceramic, 0.01 mfd 20%, 50V (SL)
C123		Electrolytic, 1 mfd, 25V	C251		Ceramic, 0.01 mfd 20%, 50V (SL)
C124		Solid Aluminum, 0.33 mfd 20%, 16V	C252		Ceramic, 0.01 mfd 10%, 50V (SL)
			C253		Ceramic, 0.01 mfd 20%, 50V (SL)
C125		Tantalum, 0.22 mfd 10%, 35V	C254		Ceramic, 0.01 mfd 20%, 50V (SL)
C126		Mylar, 0.047 mfd 10%, 50V	C255		Ceramic, 0.01 mfd 20%, 50V (SL)

\* BL Ceramic stands for Boundary Layer Ceramic (or Semiconductive Ceramic).

# CAPACITORS

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
C256		Ceramic, 0.01 mfd 20%, 50V (SL)	C328		Ceramic, 180 pF 5%, 50V (SL)
C257		BL Ceramic, 0.047 mfd 20%, 50V	C329		Ceramic, 15 pF 5%, 50V (SL)
C258		BL Ceramic, 0.047 mfd 20%, 50V	C330		Ceramic, 75 pF 5%, 50V (SL)
C259		Ceramic, 0.01 mfd 20%, 50V (SL)	C331		Ceramic, 220 pF 5%, 50V (SL)
C260		Electrolytic, 47 mfd, 16V	C332		Electrolytic, 220 mfd, 10V
C261		Ceramic, 100 pF 5%, 50V (SL)	C333		Electrolytic, 100 mfd, 10V
C262		Ceramic, 330 pF 5%, 50V (SL)	C334		Ceramic, 270 pF 5%, 50V (SL)
C263		Ceramic, 100 pF 5%, 50V (SL)	C335		Ceramic, 120 pF 5%, 50V (SL)
C264		Electrolytic, 47 mfd, 16V	C336		Ceramic, 82 pF 5%, 50V (SL)
C265		BL Ceramic, 0.047 mfd 20%, 50V	C337		Ceramic, 430 pF 5%, 50V (SL)
C266		Electrolytic, 1 mfd, 50V	C338		Ceramic, 180 pF 5%, 50V (SL)
C267		Electrolytic, 47 mfd, 16V	C339		Ceramic, 39 pF 5%, 50V (SL)
C268		Ceramic, 150 pF 5%, 50V (SL)	C340		Ceramic, 8 pF 5%, 50V (SL)
C269		Ceramic, 150 pF 5%, 50V (SL)	C341		Ceramic, 27 pF 5%, 50V (SL)
C270		Ceramic, 0.01 mfd 20%, 50V (SL)	C342		Ceramic, 120 pF 5%, 50V (SL)
C271		Ceramic, 27 pF 5%, 50V (SL)	C343		Ceramic, 5 pF 5%, 50V (SL)
C272		Ceramic, 27 pF 5%, 50V (SL)	C344		Ceramic, 16 pF 5%, 50V (SL)
C273		Ceramic, 0.01 mfd 20%, 50V (SL)	C345		Ceramic, 16 pF 5%, 50V (SL)
C274		Ceramic, 0.01 mfd 20%, 50V (SL)	C346		Ceramic, 6 pF 5%, 50V (SL)
C275		Ceramic, 0.01 mfd 20%, 50V (SL)	C347		Electrolytic, 4.7 mfd, 16V
C276		Electrolytic, 47 mfd, 16V	C348		BL Ceramic, 0.047 mfd 20%, 50V
C277		BL Ceramic, 0.047 mfd 20%, 50V	C349		Electrolytic, 100 mfd, 10V
C278		Ceramic, 0.01 mfd 20%, 50V (SL)	C350		Ceramic, 1000 pF 10%, 50V (SL)
C279		Electrolytic, 1 mfd, 50V	C351		Ceramic, 0.01 mfd 20%, 50V (SL)
C280		Ceramic, 0.012 mfd 10%, 50V (SL)	C353		Electrolytic, 4.7 mfd, 16V
C281		Electrolytic, 1 mfd, 50V	C354		Ceramic, 270 pF 5%, 50V (SL)
C282		Ceramic, 0.012 mfd 10%, 50V (SL)	C355		Ceramic, 270 pF 5%, 50V (SL)
C283		Ceramic, 15 pF 5%, 50V (SL)	C356		Ceramic, 33 pF 5%, 50V (SL)
C284		Ceramic, 47 pF 5%, 50V (SL)	C357		BL Ceramic, 0.022 mfd 20%, 50V
C285		Ceramic, 0.01 mfd 20%, 50V (SL)	C358		Ceramic, 1000 pF 5%, 50V (SL)
C286		Ceramic, 1000 pF 5%, 50V (SL)	C359		Electrolytic, 47 mfd, 10V
C287		Ceramic, 120 pF 5%, 50V (SL)	C360		Electrolytic, 4.7 mfd, 16V
C289		Ceramic, 0.01 mfd 20%, 50V (SL)	C361		BL Ceramic, 0.047 mfd 20%, 50V
C290		BL Ceramic, 0.047 mfd 20%, 50V	C362		Electrolytic, 100 mfd, 10V
C291		Electrolytic, 47 mfd, 16V	C363		Ceramic, 0.01 mfd 20%, 50V (SL)
C292		Electrolytic, 10 mfd, 10V	C364		Ceramic, 82 pF 5%, 50V (SL)
C293		BL Ceramic, 0.047 mfd 20%, 50V	C365		Ceramic, 0.01 mfd 20%, 50V (SL)
C294		Ceramic, 330 pF 5%, 50V (SL)	C366		Ceramic, 0.01 mfd 20%, 50V (SL)
C295		Ceramic, 4700 pF 5%, 50V (SL)	C367		Ceramic, 510 pF 5%, 50V (SL)
C296		Electrolytic, 1 mfd, 50V	C368		Ceramic, 510 pF 5%, 50V (SL)
C297		Ceramic, 1000 pF 5%, 50V (SL)	C369		Ceramic, 510 pF 5%, 50V (SL)
C298		Ceramic, 27 pF 5%, 50V (SL)	C370		Electrolytic, 1 mfd, 50V
C299		Ceramic, 0.01 mfd 20%, 50V (SL)	C371		Ceramic, 0.01 mfd 20%, 50V (SL)
C300		Ceramic, 220 pF 5%, 50V (SL)	C372		Ceramic, 0.01 mfd 20%, 50V (SL)
C301		Ceramic, 4700 pF 5%, 50V (SL)	C373		Electrolytic, 1000 mfd, 10V
C302		Electrolytic, 1 mfd, 50V	C374		Ceramic, 0.01 mfd 20%, 50V (SL)
C303		Electrolytic, 10 mfd, 16V	C375		Electrolytic, 47 mfd, 16V
C304		Ceramic, 100 pF 5%, 50V (SL)	C376		BL Ceramic, 0.047 mfd 20%, 50V
C305		Electrolytic, 4.7 mfd, 25V	C377		BL Ceramic, 0.022 mfd 30%, 16V (X)
C306		Ceramic, 0.01 mfd 10%, 50V (SL)	C378		BL Ceramic, 0.047 mfd 20%, 50V
C307		Ceramic, 470 pF 5%, 50V (SL)	C380		BL Ceramic, 0.047 mfd 20%, 50V
C308		Ceramic, 470 pF 5%, 50V (SL)	C381		Ceramic, 120 pF 5%, 50V (SL)
C309		Ceramic, 220 pF 5%, 50V (SL)	C382		BL Ceramic, 0.047 mfd 20%, 50V
C310		BL Ceramic, 0.047 mfd 20%, 50V	C383		Ceramic, 330 pF 5%, 50V (SL)
C311		Electrolytic, 4.7 mfd, 16V	C384		Ceramic, 390 pF 5%, 50V (SL)
C312		Ceramic, 0.01 mfd 20%, 50V (SL)	C385		Ceramic, 270 pF 5%, 50V (SL)
C313		Ceramic, 220 pF 5%, 50V (SL)	C386		BL Ceramic, 0.047 mfd 20%, 50V
C314		Ceramic, 680 pF 5%, 50V (SL)	C387		BL Ceramic, 0.022 mfd 30%, 16V (X)
C315		Electrolytic, 1 mfd, 50V	C388		Ceramic, 0.01 mfd 10%, 50V (SL)
C316		Electrolytic, 10 mfd, 16V	C389		Ceramic, 0.01 mfd 10%, 50V (SL)
C317		Ceramic, 680 pF 5%, 50V (SL)	C394		Ceramic, 680 pF 5%, 50V (SL)
C318		Electrolytic, 4.7 mfd, 25V	C395		Electrolytic, 100 mfd, 10V
C319		Ceramic, 0.01 mfd 20%, 50V (SL)	C396		BL Ceramic, 0.047 mfd 20%, 50V
C320		Electrolytic, 4.7 mfd, 25V	C397		Mylar, 0.033 mfd 20%, 50V
C321		Ceramic, 1000 pF 10%, 50V (SL)	C400		BL Ceramic, 0.047 mfd 20%, 50V
C322		Ceramic, 1000 pF 10%, 50V (SL)	C401		Ceramic, 240 pF 5%, 50V (SL)
C323		BL Ceramic, 0.047 mfd 20%, 50V	C402		Mylar, 0.15 mfd 20%, 50V
C324		Ceramic, 0.01 mfd 20%, 50V (SL)	C403		BL Ceramic, 0.047 mfd 20%, 50V
C325		BL Ceramic, 0.047 mfd 20%, 50V			
C326		Ceramic, 0.01 mfd 20%, 50V (SL)			

\* BL Ceramic stands for Boundary Layer Ceramic (or Semiconductive Ceramic).

# CAPACITORS

Schematic Location	Part No.	Description	Schematic Location	Part No.	Description
C404		Ceramic, 0.01 mfd 10%, 50V (SL)	C816		Solid Aluminum, 1.5 mfd 20%, 25V
C405		Electrolytic, 10 mfd, 16V	C817		Electrolytic, 22 mfd, 16V
C406		Ceramic, 91 pF 5%, 50V (SL)	C818		Mylar, 3300 pF 20%, 50V
C601		Electrolytic, 100 mfd, 6.3V	C819		Mylar, 3300 pF 20%, 50V
C602		Ceramic, 1200 pF, 20%, 50V (D)	C820		Mylar 0.047 mfd 20%, 50V
C603		Ceramic, 100 pF, 5%, 50V (SL)	C821		Mylar, 0.047 mfd 20%, 50V
C604		Electrolytic, 10 mfd, 10V	C822		Electrolytic, 10 mfd, 16V
C605		Electrolytic, 100 mfd, 10V	C823		Electrolytic, 33 mfd, 16V
C606		Electrolytic, 4.7 mfd, 16V	C824		Electrolytic, 10 mfd, 16V
C607		Ceramic, 0.01 mfd 30%, 25V (X)	C825		Electrolytic, 220 mfd, 16V
C608		BL Ceramic, 0.022 mfd 10%, 25V	C826		Electrolytic, 220 mfd, 16V
C609		Electrolytic, 100 mfd, 10V	C827		Electrolytic, 33 mfd, 16V
C610		Electrolytic, 4.7 mfd, 16V	C828		Electrolytic, 22 mfd, 16V
C611		Electrolytic, 33 mfd, 16V	C829		Electrolytic, 47 mfd, 16V
C612		Electrolytic, 4.7 mfd, 16V	C830		Electrolytic, 1000 mfd, 6.3V
C613		Electrolytic, 4.7 mfd, 16V	C901		Ceramic, 47 pF 5%, 50V (RH)
C614		BL Ceramic, 0.015 mfd 10%, 25V	C902		Ceramic, 39 pF 5%, 50V (RH)
C615		Electrolytic, 4.7 mfd, 16V	C903		Ceramic, 20 pF 5%, 50V (RH)
C616		Ceramic, 2200 pF 30%, 25V (X)	C904		Ceramic, 4700 pF 10%, 50V (YB)
C617		Ceramic, 6800 pF 30%, 25V (X)	C905		Ceramic, 68 pF 5%, 50V (RH)
C618		Electrolytic, 4.7 mfd, 16V	C906		Ceramic, 0.01 mfd +80-20%, 50V (YF)
C619		Electrolytic, 10 mfd, 10V	C907		Ceramic, 120 pF 5%, 50V (RH)
C620		Electrolytic, 100 mfd, 10V	C908		Ceramic, 4700 pF 10%, 50V (YB)
C621		Ceramic, 4700 pF 30%, 25V (X)	C909		Ceramic, 22 pF 5%, 50V (RH)
C622		Electrolytic, 4.7 mfd, 16V	C910		Ceramic, 0.01 mfd, +80-20%, 50V (YF)
C623		Electrolytic, 100 mfd, 6.3V	C911		Ceramic, 27 pF 5%, 50V (RH)
C624		Electrolytic, 220 mfd, 6.3V	C912		Ceramic, 5 pF +0.25 pF, 50V (RH)
C626		Mylar, 0.1 mfd 10%, 50V	C913		Ceramic, 5 pF +0.25 pF, 50V (RH)
C627		Electrolytic, 4.7 mfd, 16V	C915		Ceramic, 0.01 mfd +80-20%, 50V (YF)
C628		Electrolytic, 100 mfd, 16V	C916		Electrolytic, 4.7 mfd 16V
C629		Electrolytic, 4.7 mfd, 16V	C917		Ceramic, 0.01 mfd, +80-20%, 50V (YF)
C630		Ceramic, 1000 pF 20%, 50V (D)	C918		Electrolytic, 47 mfd, 16V
C631		Ceramic, 180 pF 10%, 50V (B)	C919		Mylar, 0.01 mfd 5%, 50V
C632		Electrolytic, 100 mfd, 16V	C920		Electrolytic, 4.7 mfd, 16V
C633		Electrolytic, 33 mfd, 16V	C921		Electrolytic, 4.7 mfd, 16V
C634		Ceramic, 0.01 mfd 30%, 25V (X)	C922		Ceramic, 33 pF 5%, 50V (PH)
C635		BL Ceramic, 0.015 mfd 10%, 25V	C923		Ceramic, 27 pF 5%, 50V (PH)
C636		Ceramic, 220 pF 10%, 100V (SL)	C924		Ceramic, 1 pF +0.25 pF, 50V (SL) (for Continent and England)
C637		Poly. film, 0.01 mfd 10%, 400V	C924		Ceramic, 1.5 pF +0.25 pF, 50V (SL) (for Australia)
C638		Electrolytic, 4.7 mfd, 16V	C925		Ceramic, 12 pF 5%, 50V (PH)
C639		Ceramic, 47 pF 5%, 50V (SL)	C926		Ceramic, 12 pF 5%, 50V (PH)
C640		Electrolytic, 100 mfd, 16V	C927		Ceramic, 1000 pF 10%, 50V (YB)
C701	⚠	Electrolytic, 10000 mfd, 25V	C928		Electrolytic, 47 mfd, 16V
C702	⚠	Electrolytic, 33 mfd, 35V	C929		Ceramic, 0.01 mfd, +80-20%, 50V (YF)
C703	⚠	Electrolytic, 100 mfd, 35V	C930		Ceramic, 15 pF 5%, 50V (RH)
C704	⚠	Electrolytic, 470 mfd, 35V	C931		Ceramic, 1000 pF 10%, 50V (YB)
C705	⚠	Electrolytic, 100 mfd, 63V	C932		Ceramic, 100 pF 5%, 50V (RH)
C706		Electrolytic, 22 mfd, 25V	C933		Ceramic, 18 pF 5%, 50V (RH)
C707		Electrolytic, 100 mfd, 25V	C934		Ceramic, 0.047 mfd +80-20%, 50V (YF)
C708		Electrolytic, 33 mfd, 16V	C935		Mylar, 0.01 mfd 5%, 50V
C709		Electrolytic, 220 mfd, 16V	C936		Electrolytic, 10 mfd, 16V
C710		Mylar, 1000 pF, 50V	C937		Electrolytic, 10 mfd, 16V
C711		Electrolytic, 100 mfd, 16V	C938		Ceramic, 120 pF 10%, 50V (SL)
C712		Solid Aluminum, 0.1 mfd, 25V	C939		Electrolytic, 470 mfd, 16V
C801		Electrolytic, 4700 mfd, 16V	C940		Ceramic, 0.01 mfd +80-20%, 50V (YF)
C802		Electrolytic, 1000 mfd, 10V	C942		Electrolytic, 47 mfd, 16V
C803		Electrolytic, 0.47 mfd, 25V	C943		Ceramic, 0.01 mfd +80-20%, 50V (YF)
C804		Electrolytic, 2.2 mfd, 16V	C944		Electrolytic, 220 mfd, 16V
C805		Non-Polarized Electrolytic, 33 mfd, 16V			
C806		Ceramic, 150 pF 20%, 50V (SL)			
C807		Electrolytic, 1 mfd, 16V			
C808		Mylar, 0.01 mfd 20%, 50V			
C809		Electrolytic, 1 mfd, 16V			
C811		Electrolytic, 33 mfd, 16V			
C812		Electrolytic, 47 mfd, 16V			
C813		Electrolytic, 1 mfd, 16V			
C814		Electrolytic, 22 mfd, 16V			
C815		Tantalum, 22 mfd 20%, 16V			

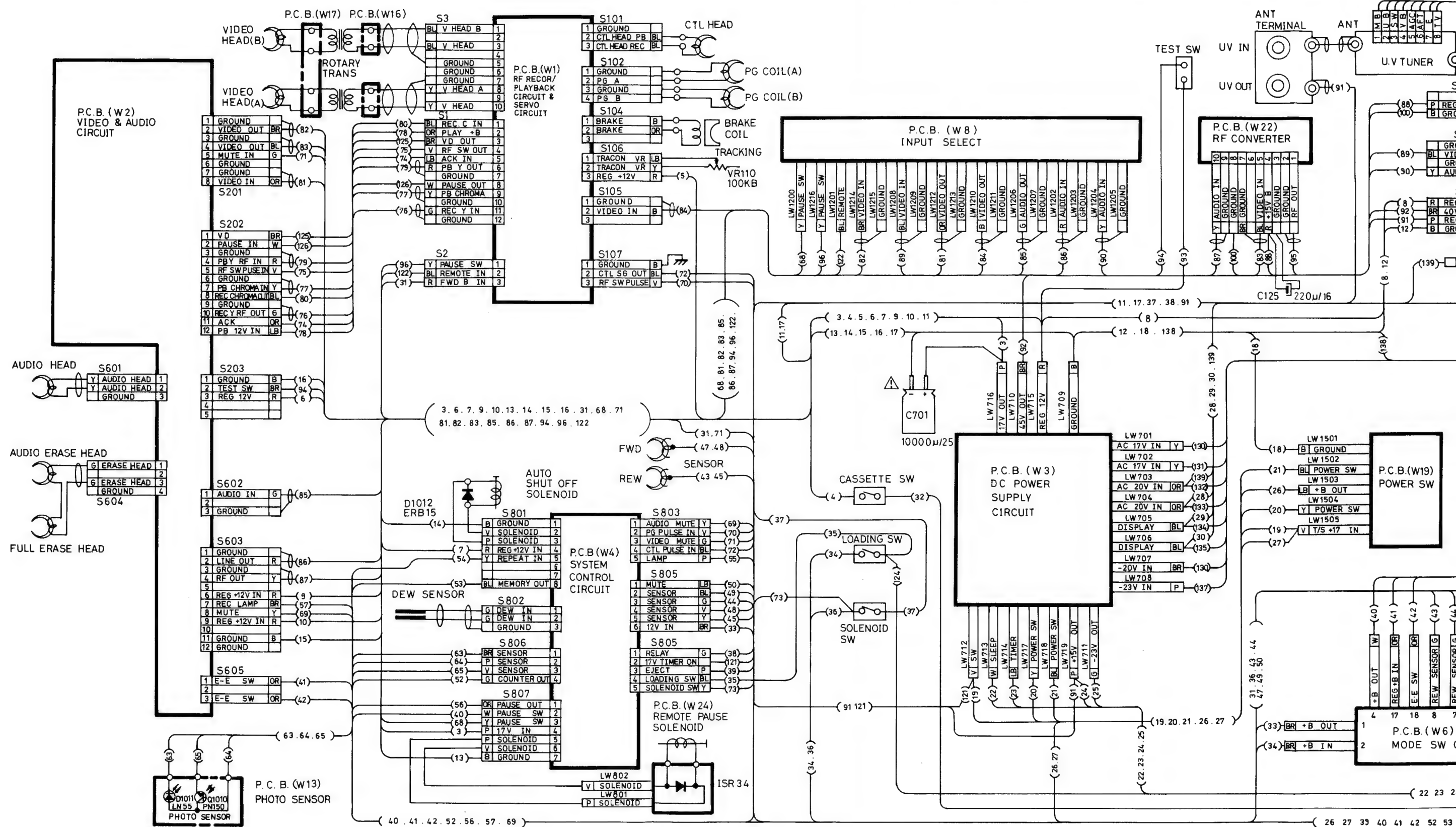
\* BL Ceramic stands for Boundary Layer Ceramic (or Semiconductive Ceramic).

## CAPACITORS

Schematic Location	Part No.	Description
C945		Ceramic, 0.01 mfd +80—20%, 50V (YF)
C946		Electrolytic, 47 mfd, 16V
C947		Ceramic, 180 pF 5%, 50V (SL)
C1101	⚠ 4-223V-16300	Metallized Polyestel, 0.1 mfd, 250VAC
C1102	⚠ 4-223V-15400	Metallized Polyestel, 3 mfd, 250VAC
	or ⚠ 4-223V-25900	Metallized Polyestel, 3 mfd, 250VAC
C1201		Ceramic, 1000 pF 10%, 50V (SL)
C1601		Electrolytic, 1 mfd, 16V
C1602		Electrolytic, 33 mfd, 16V
C1603		BL Ceramic, 0.01 mfd 20%, 50V
C1604		Electrolytic, 10 mfd, 16V
C1605		Electrolytic, 1000 mfd, 16V
C1606		BL Ceramic, 0.022 mfd 20%, 16V
C1607		Electrolytic, 10 mfd, 16V
C1608		Ceramic, 0.01 mfd +100—0%, 50V (E)
C1609		Electrolytic, 220 mfd, 10V
C1610		Electrolytic, 10 mfd, 16V
C1611		BL Ceramic, 0.022 mfd 20%, 16V
C1612		BL Ceramic, 47 pF 10%, 50V
C1613		Electrolytic, 220 mfd, 10V
C1614		Solid Aluminum, 2.2 mfd 20%, 16V
C1615		Electrolytic, 33 mfd, 16V
C1616		Electrolytic, 10 mfd, 16V
C1617		Electrolytic, 10 mfd, 16V
C1618		Solid Aluminum, 0.47 mfd 20%, 16V
C2001		Electrolytic, 22 mfd, 50V
C2002		Ceramic, 0.01 mfd +80—20%, 50V (YF)
C2051		Electrolytic, 100 mfd, 63V
C2052		Electrolytic, 100 mfd, 100V

\* BL Ceramic stands for Boundary Layer Ceramic (or Semiconductive Ceramic).

## INTER-CIRCUIT BOARD WIRING DIAGRAM




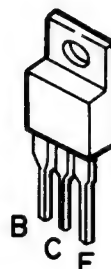
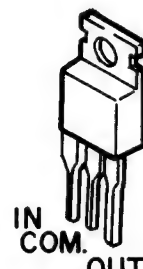

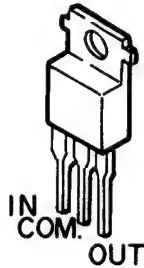

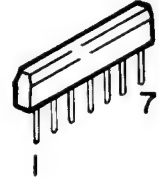
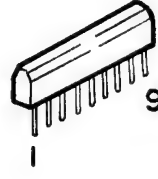
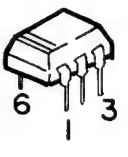
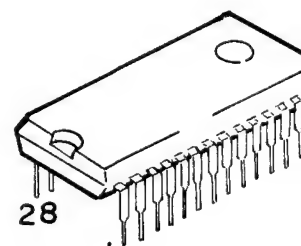
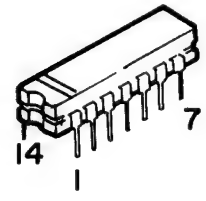
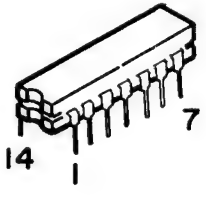
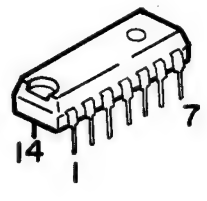
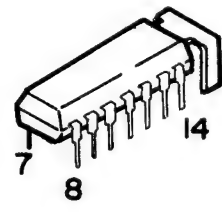
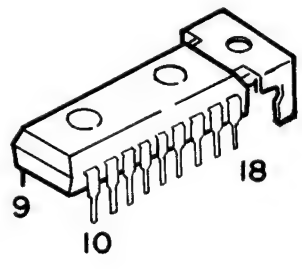
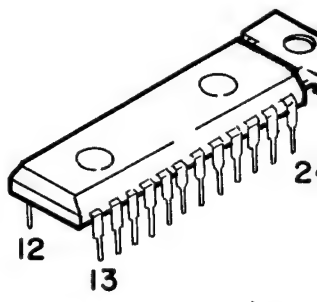








# SEMICONDUCTOR'S TERMINAL IDENTIFICATION

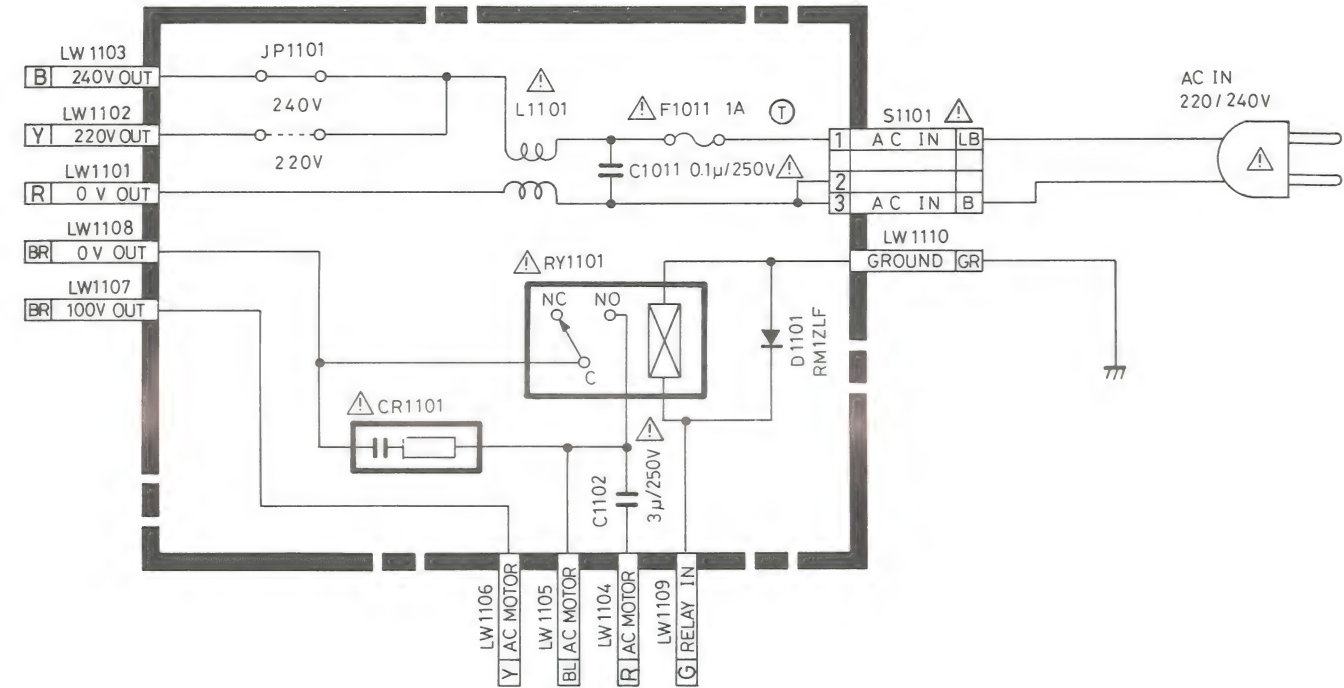
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 <p>μPC78M15H</p>	 <p>2SC2209R</p>	 <p>TA7504S  TA7174P  μPC566H3</p>	 <p>LA3210</p>	 <p>CX-130</p>	 <p>MP2721</p>
 <p>AN240P</p>	 <p>TC4069P</p>	 <p>SN74LS93N    SN74LS74AN  SN74LS10N    SN7400N  SN74LS73AN</p>	 <p>CX-150</p>	 <p>CX-145</p>	 <p>CX-136A    CX-  CX-131A    CX-  CX-135    CX-  CX-137A    CX-</p>



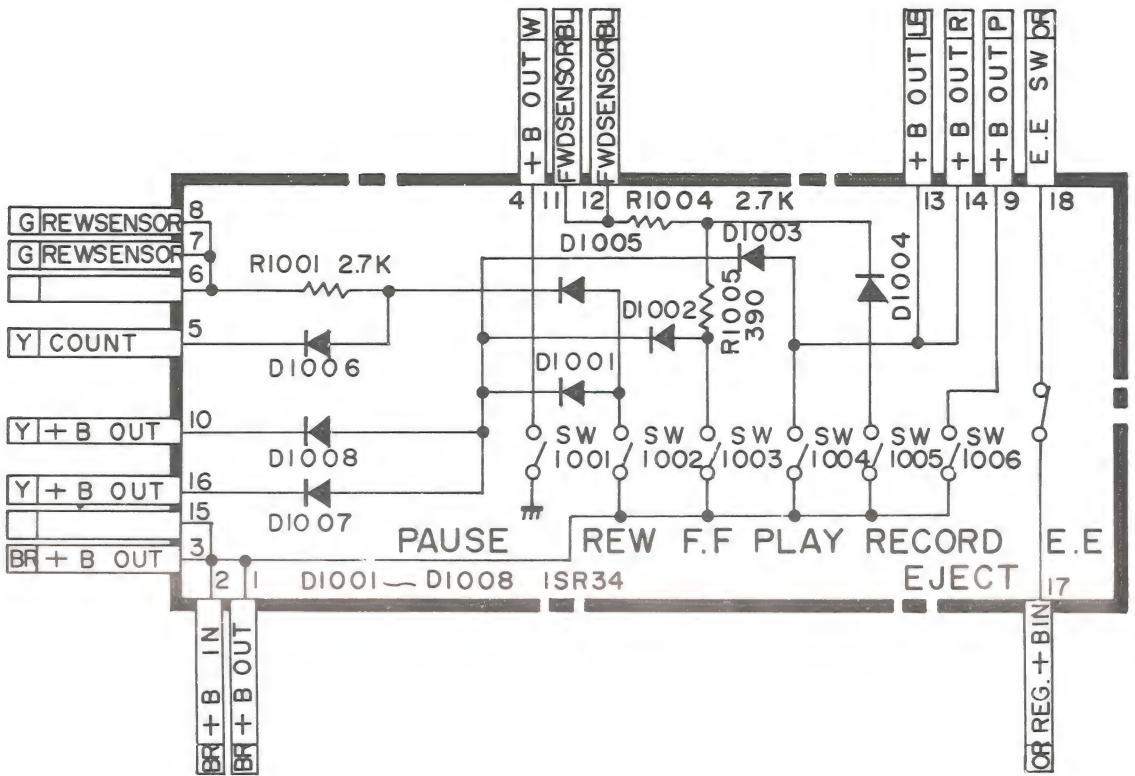
PRODUCT SAFETY NOTICE

The components designated by a symbol (  $\Delta$  ) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage and voltage ratings shown.

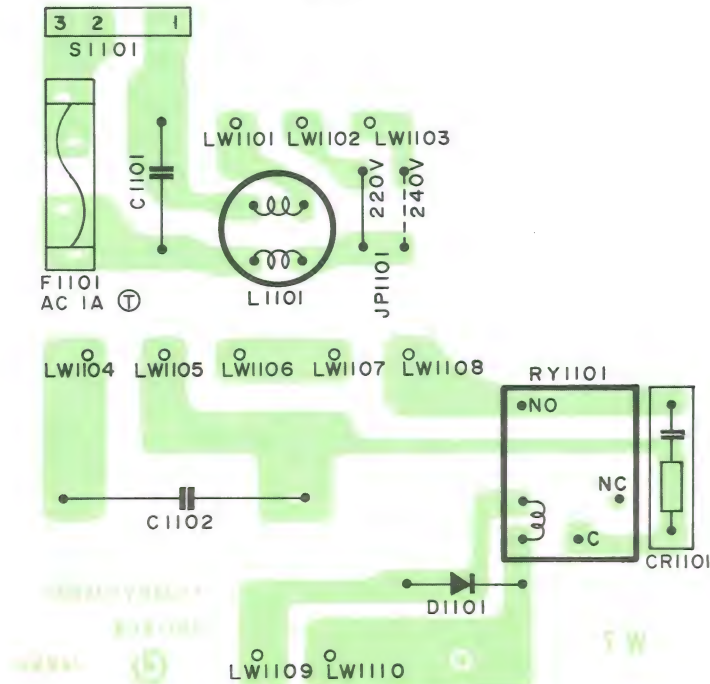
SCHEMATIC DIAGRAMS I AC POWER SUPPLY CIRCUIT (ON W7 CIRCUIT BOARD)



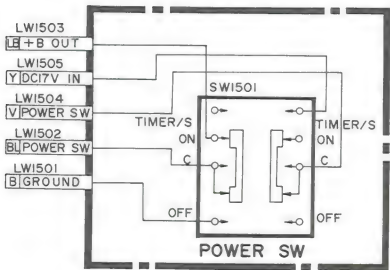
MODE SWITCH CIRCUIT (ON W6 CIRCUIT BOARD)



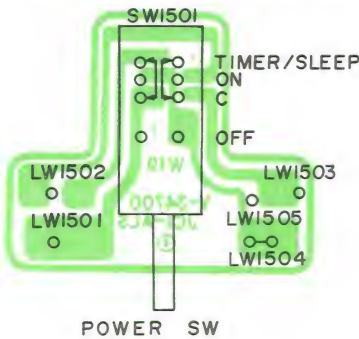
W7 CIRCUIT BOARD



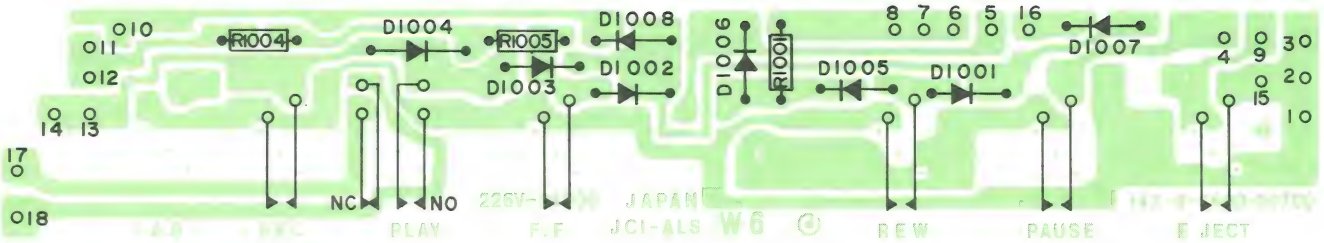
P.C.B. (W19) POWER SWITCH



W19 CIRCUIT BOARD



W6 CIRCUIT BOARD

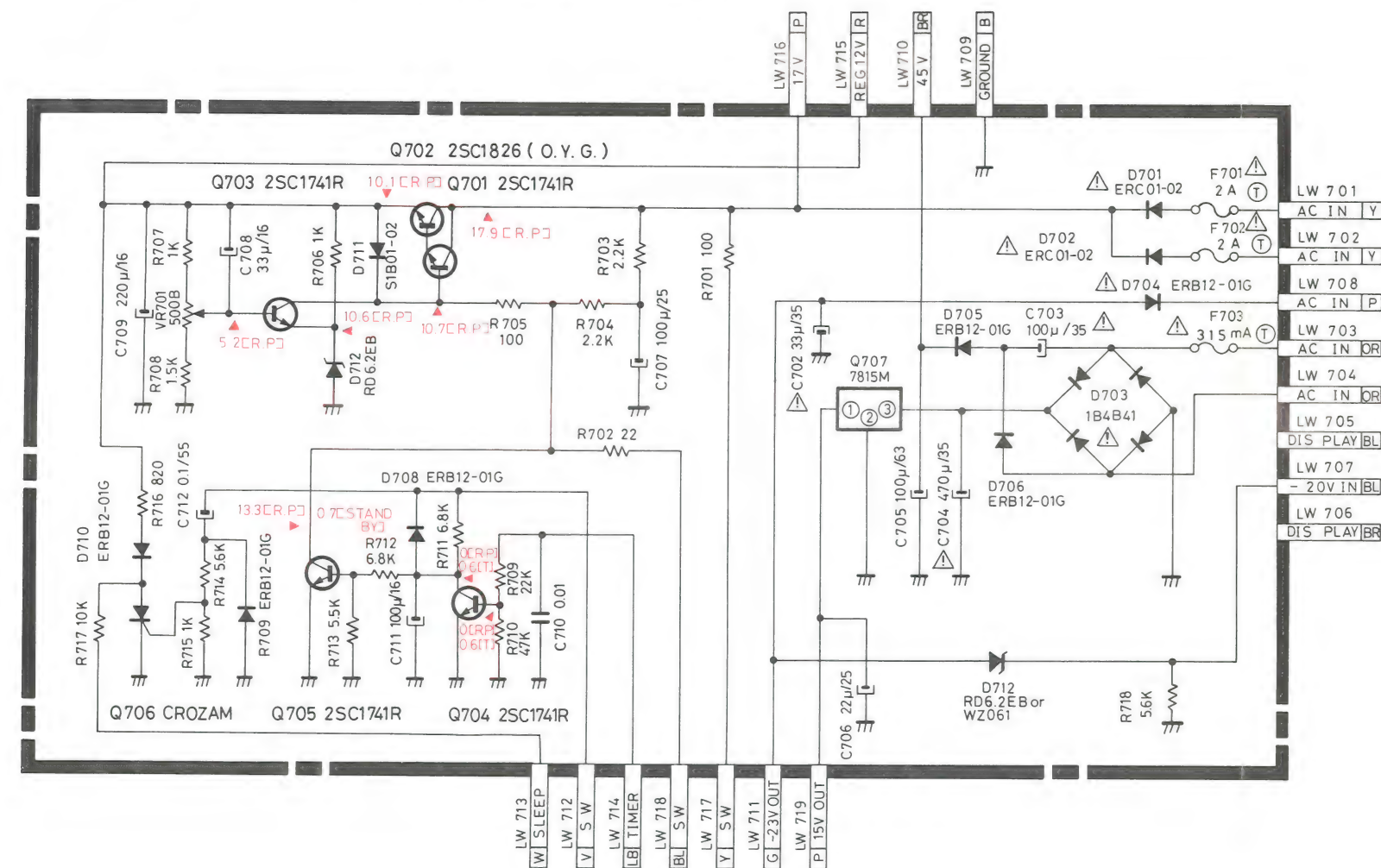




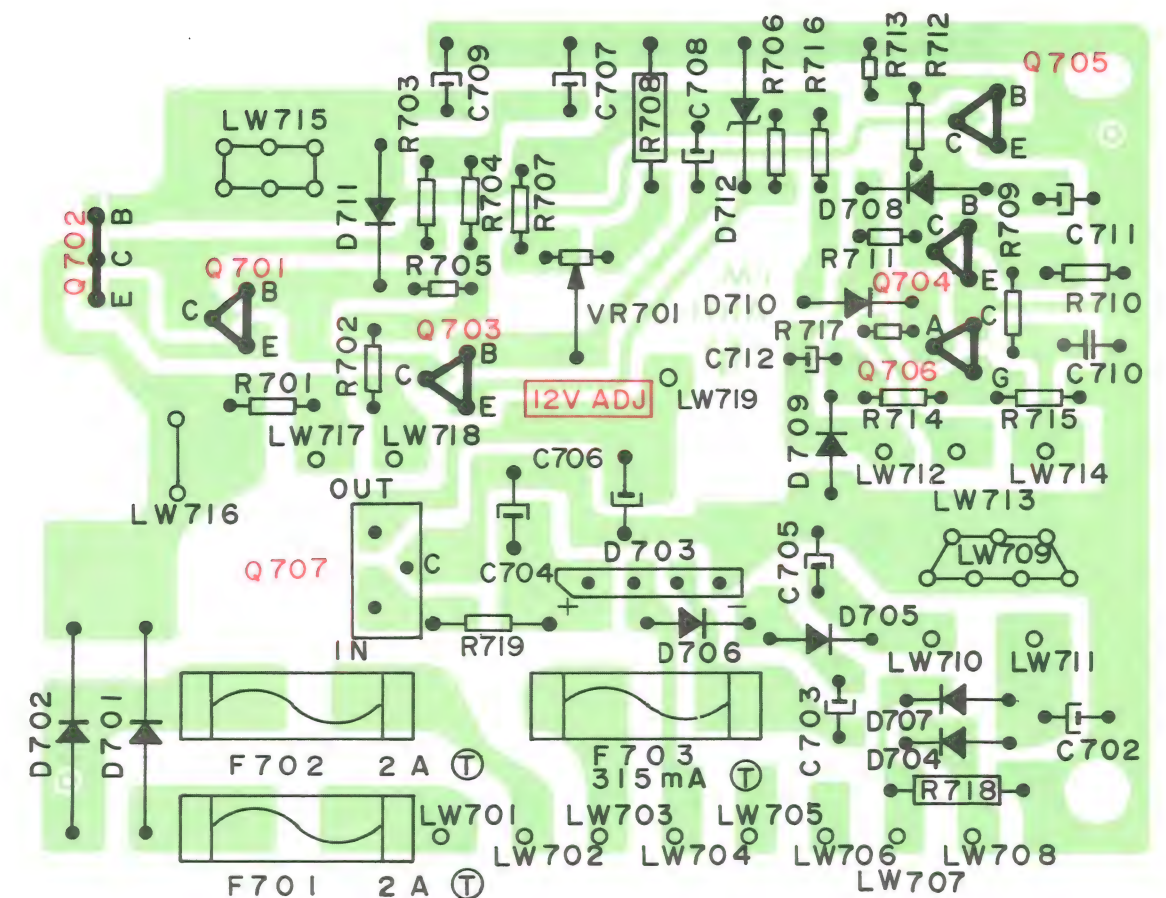
# PRODUCT SAFETY NOTICE

The components designated by a symbol (  $\Delta$  ) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage and voltage ratings shown.

## SCHEMATIC DIAGRAM II DC POWER SUPPLY CIRCUIT (ON W3 CIRCUIT BOARD)



## W3 CIRCUIT BOARD

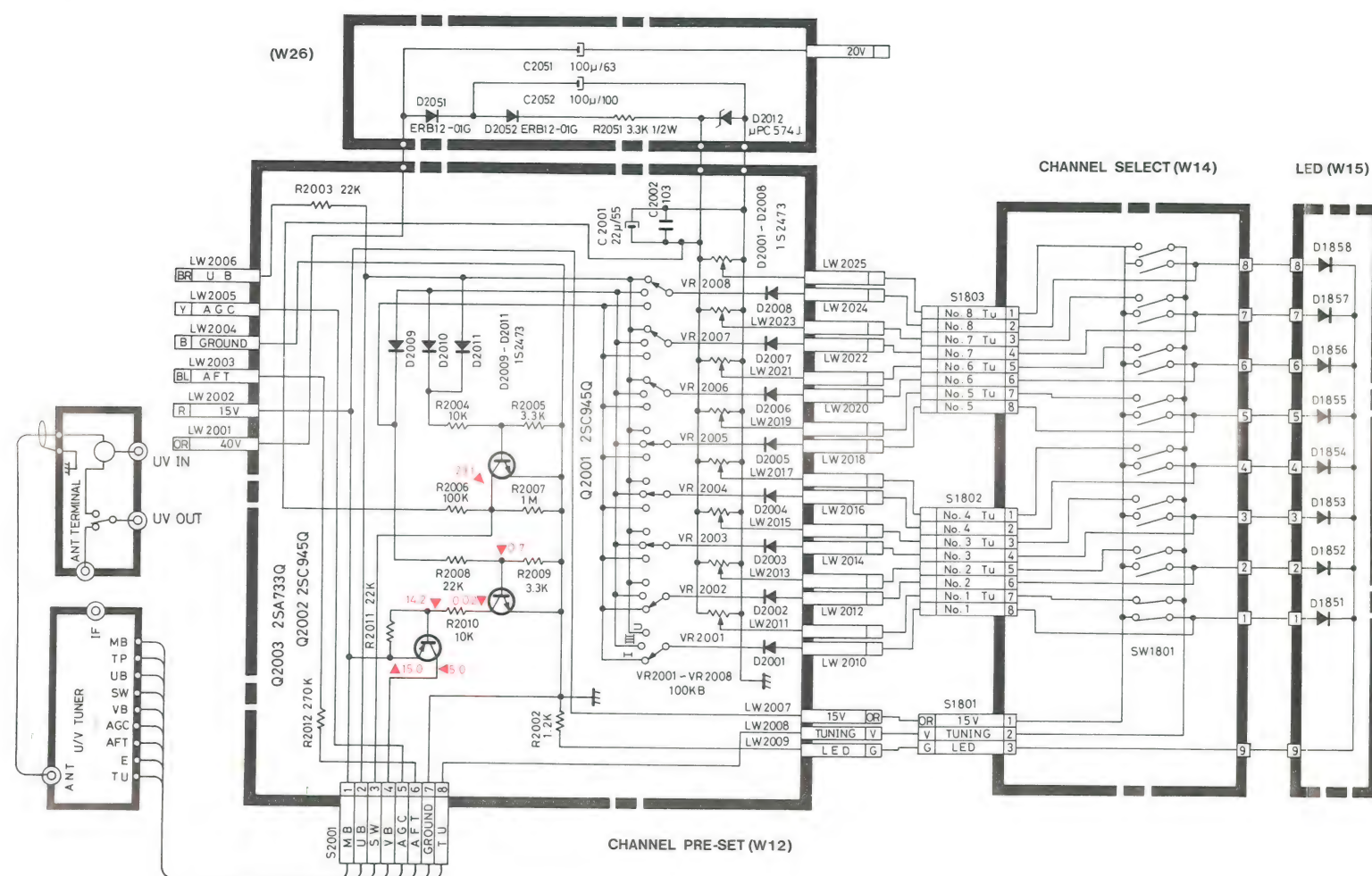




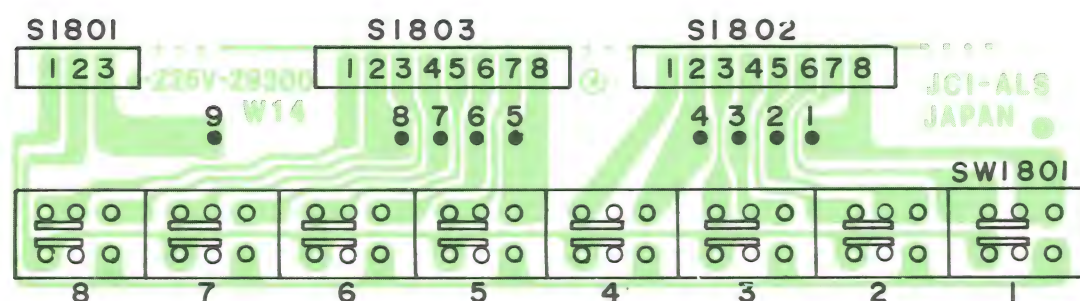
## SCHEMATIC DIAGRAM III

### CHANNEL SELECTOR CIRCUIT

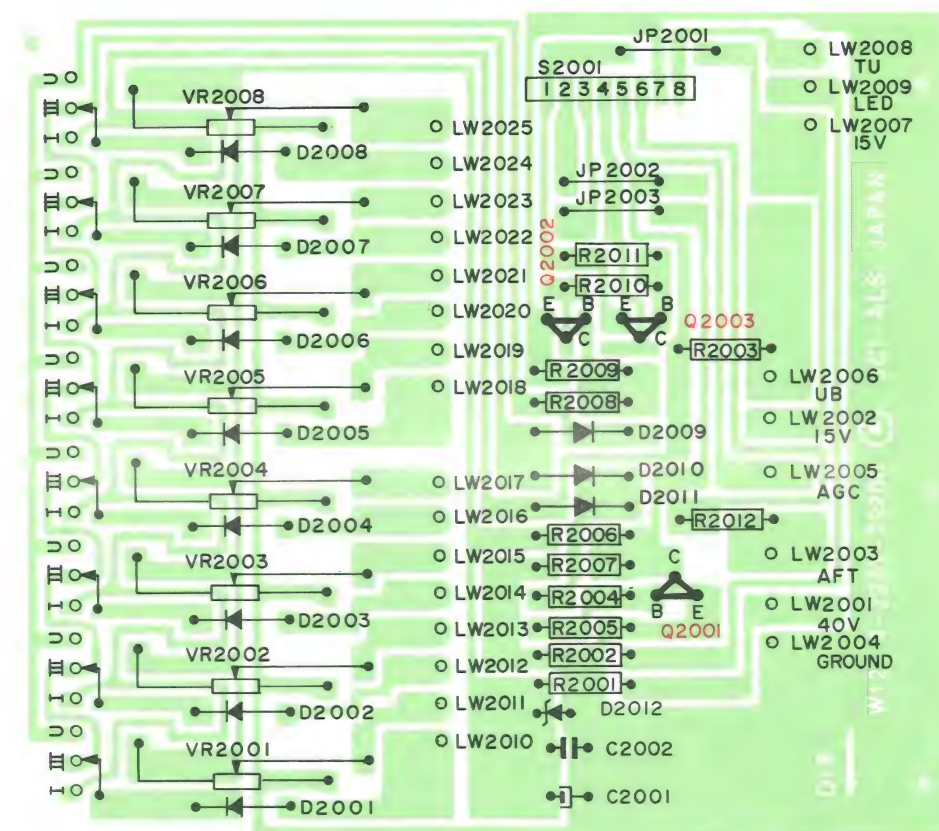
(ON W12 / W14 / W15 CIRCUIT BOARDS)



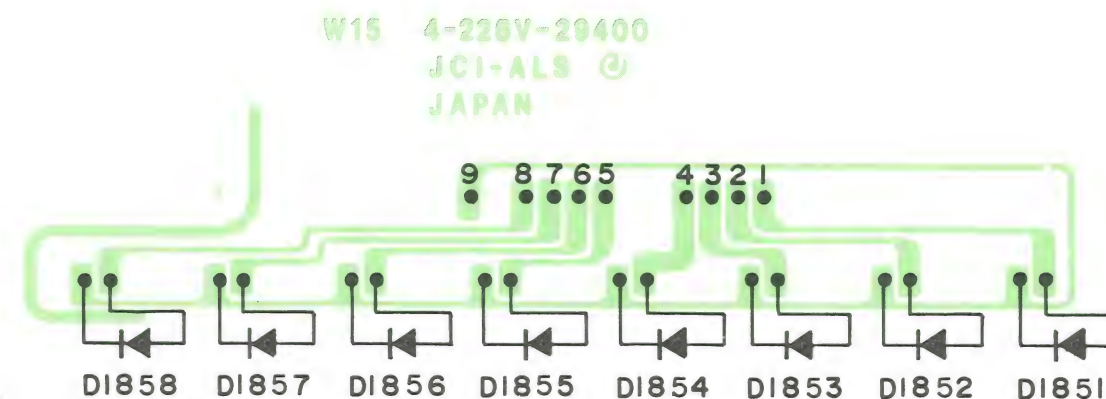
## W14 CIRCUIT BOARD



## W12 CIRCUIT BOARD

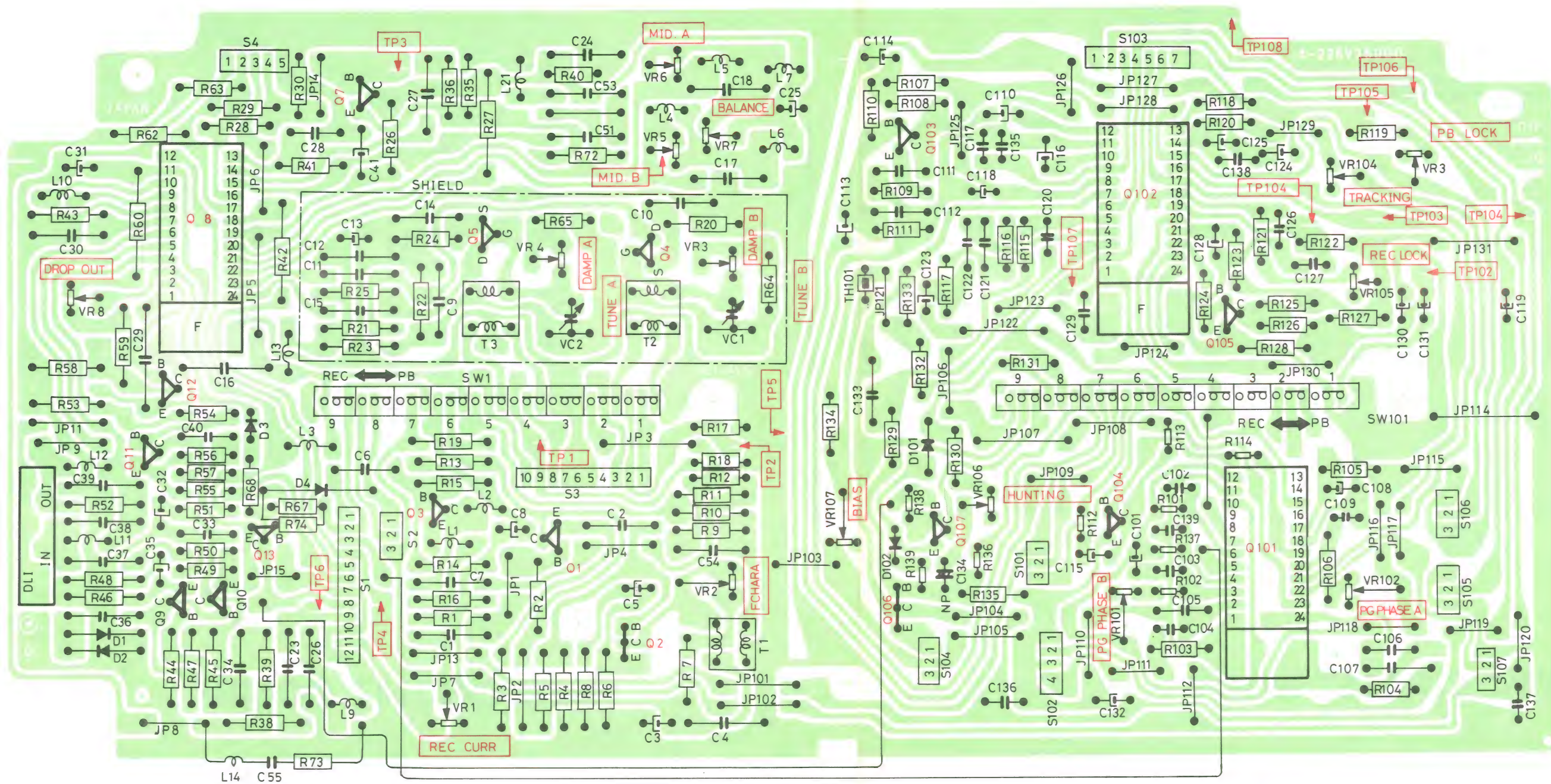


## W15 CIRCUIT BOARD



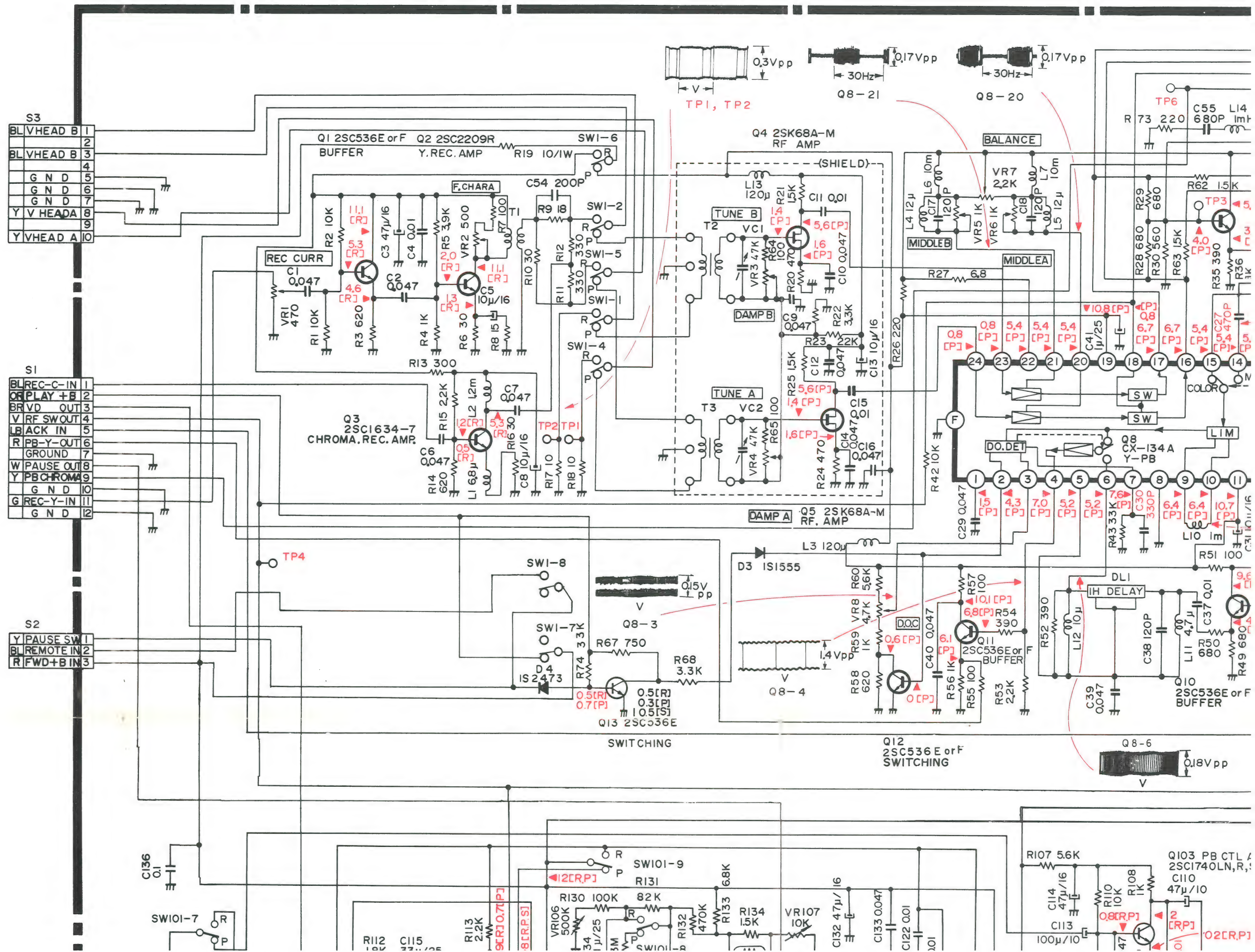


# W1 CIRCUIT BOARD



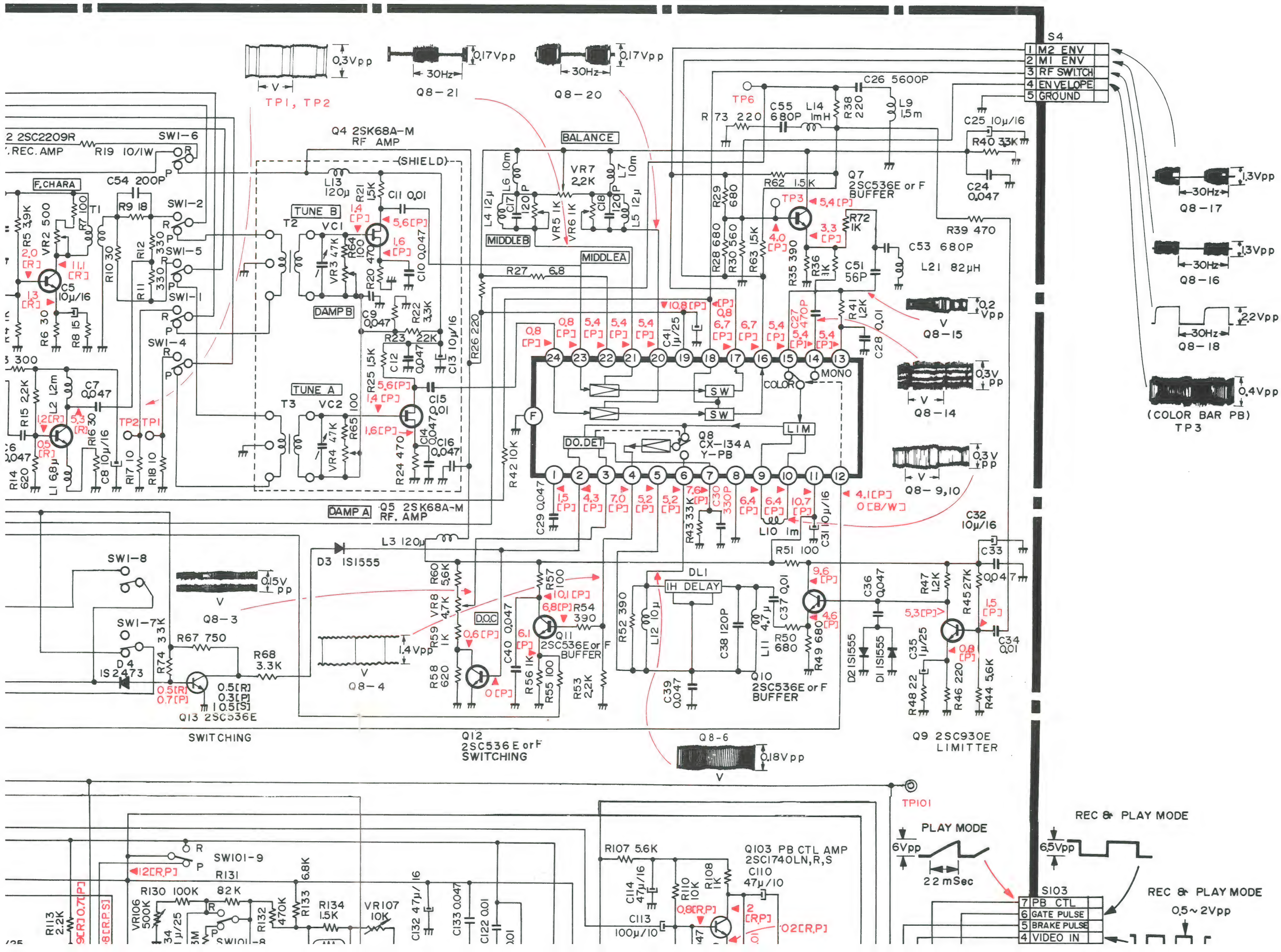


## SCHEMATIC DIAGRAM IV VIDEO CIRCUITRY (ON W1 CIRCUIT BOARD)

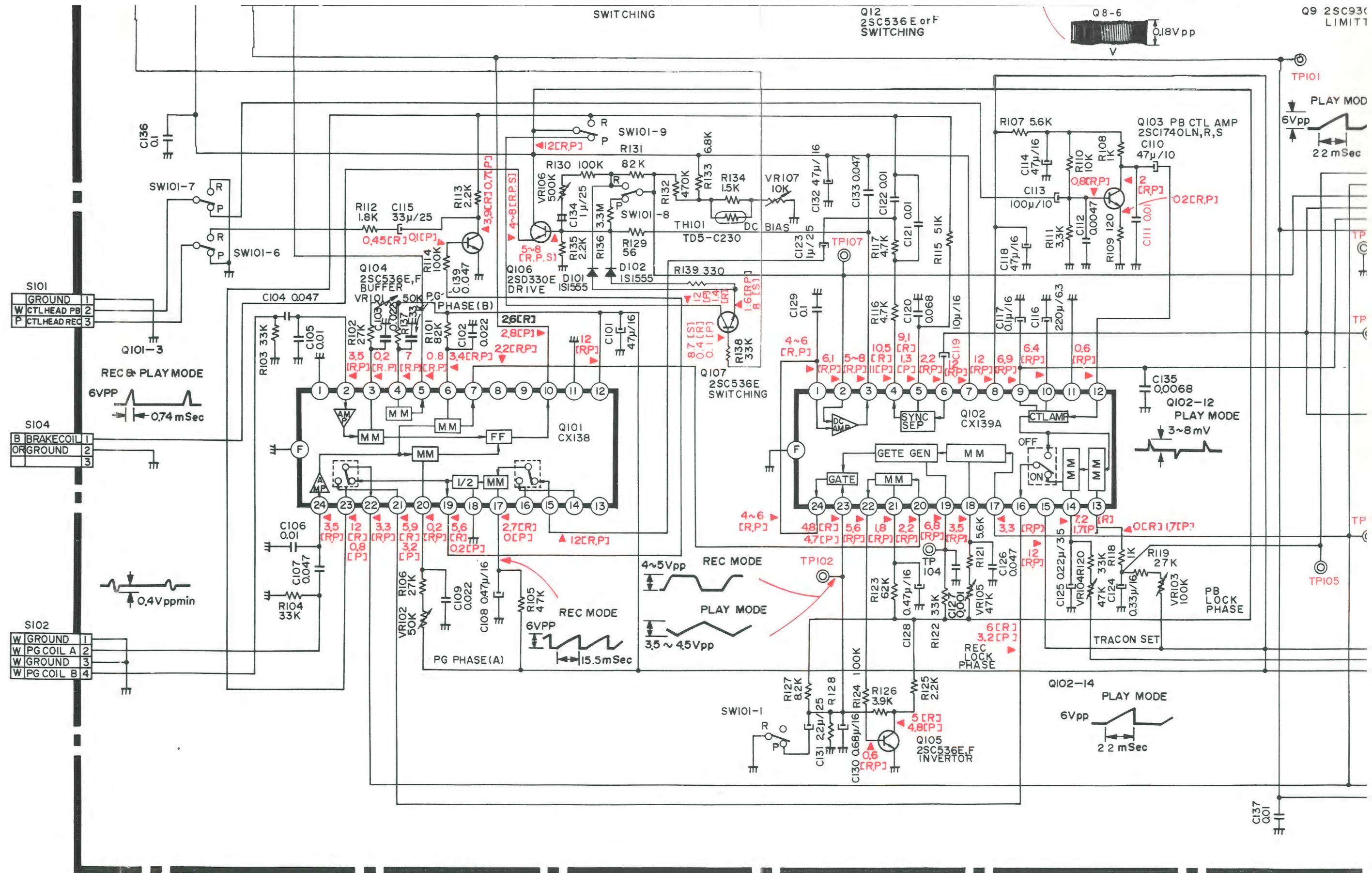




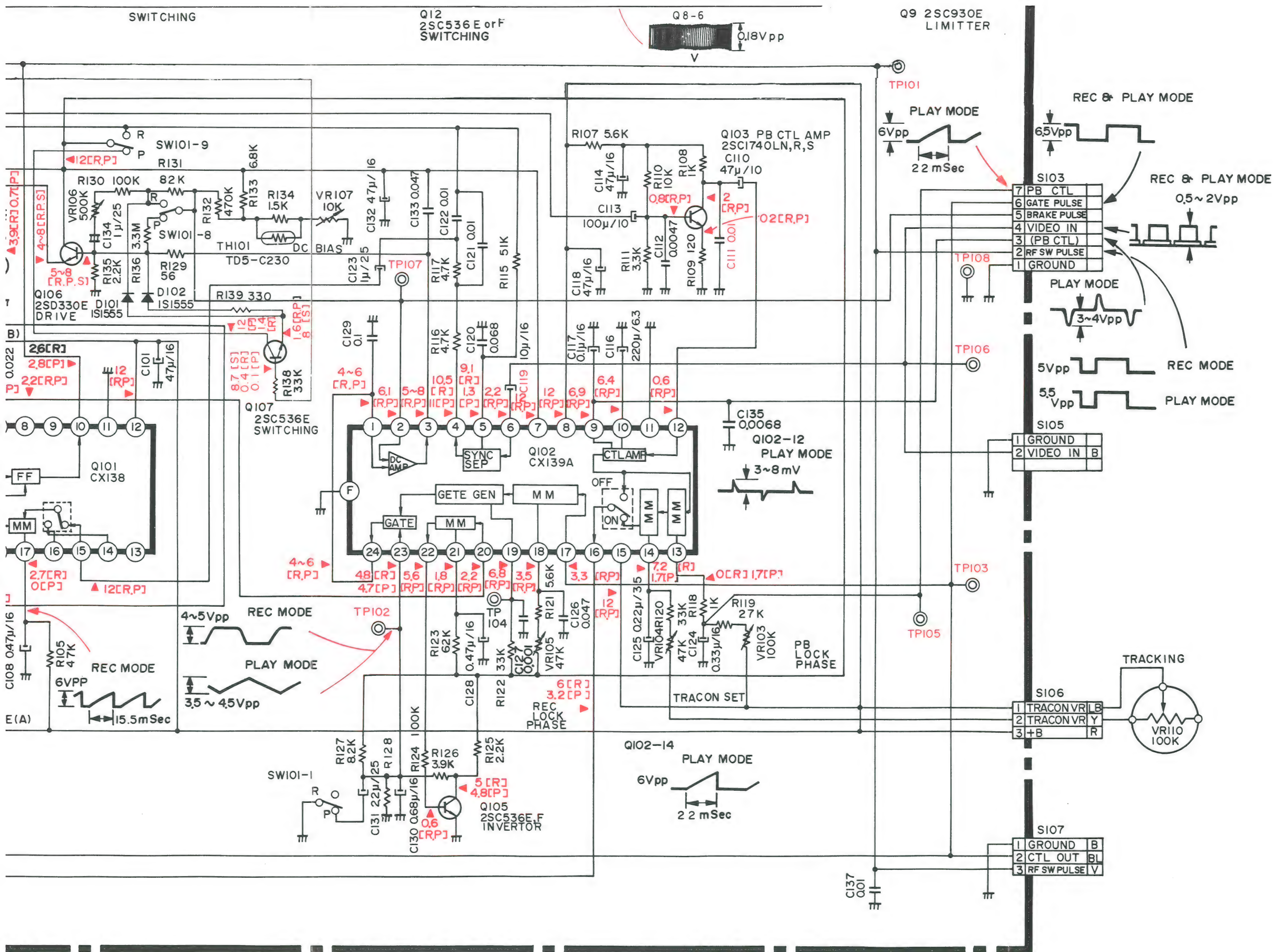
## DIAGRAM IV VIDEO CIRCUITRY (ON W1 CIRCUIT BOARD)





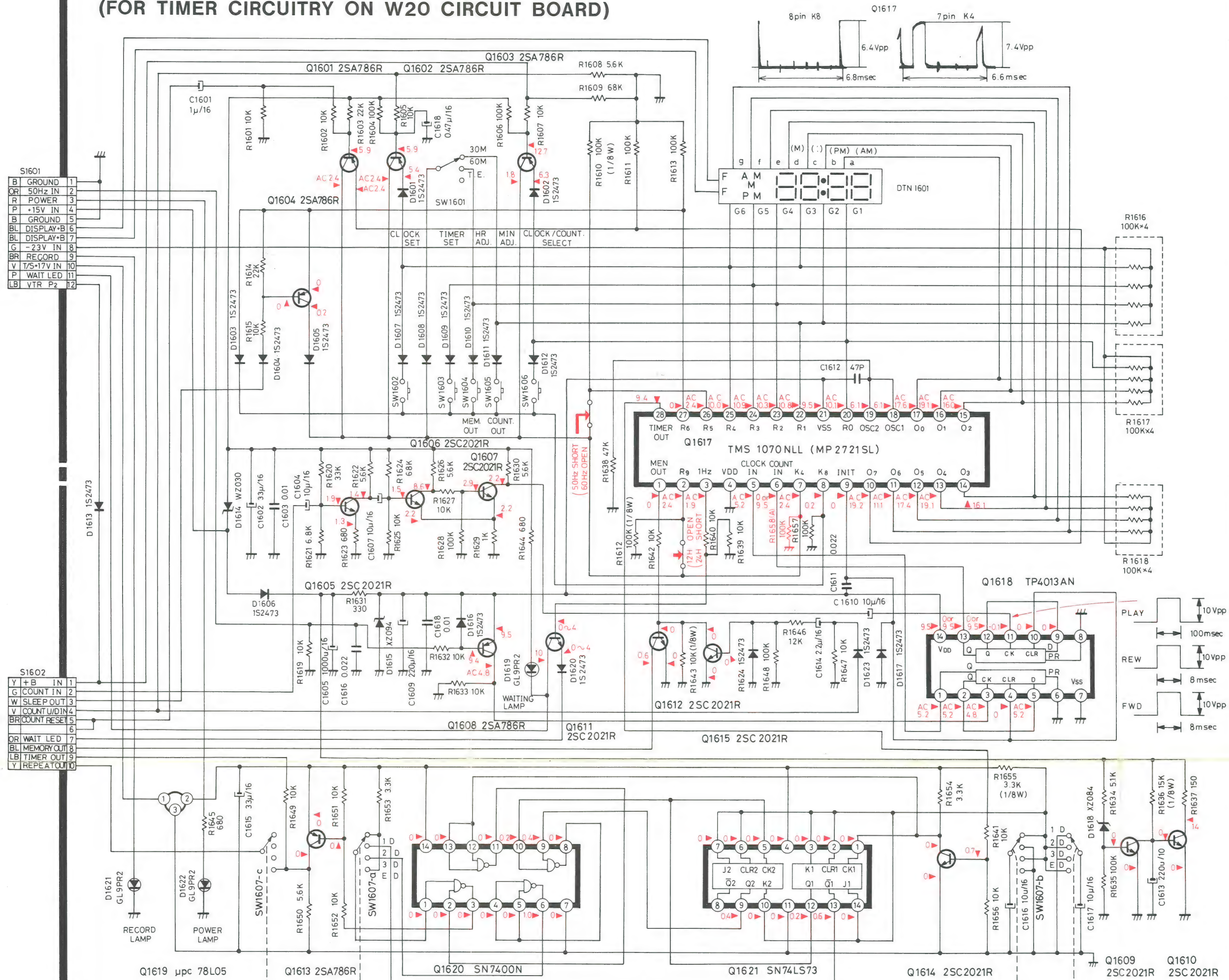




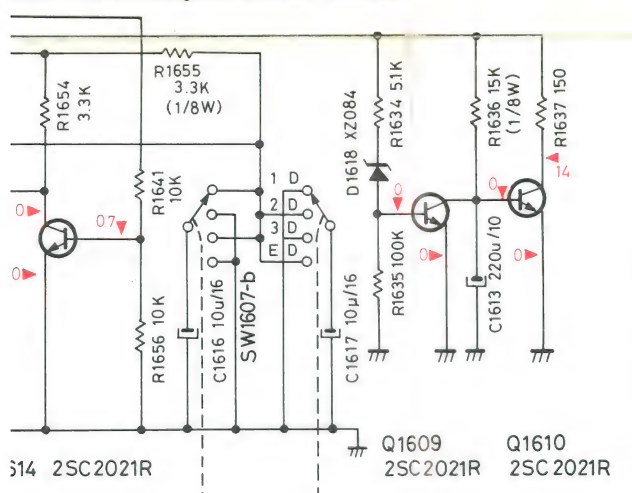




**SCHEMATIC DIAGRAM X**  
**(FOR TIMER CIRCUITRY ON W20 CIRCUIT BOARD)**

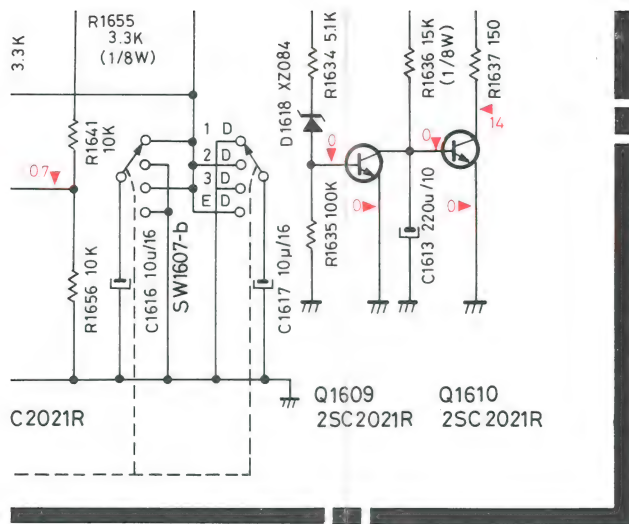




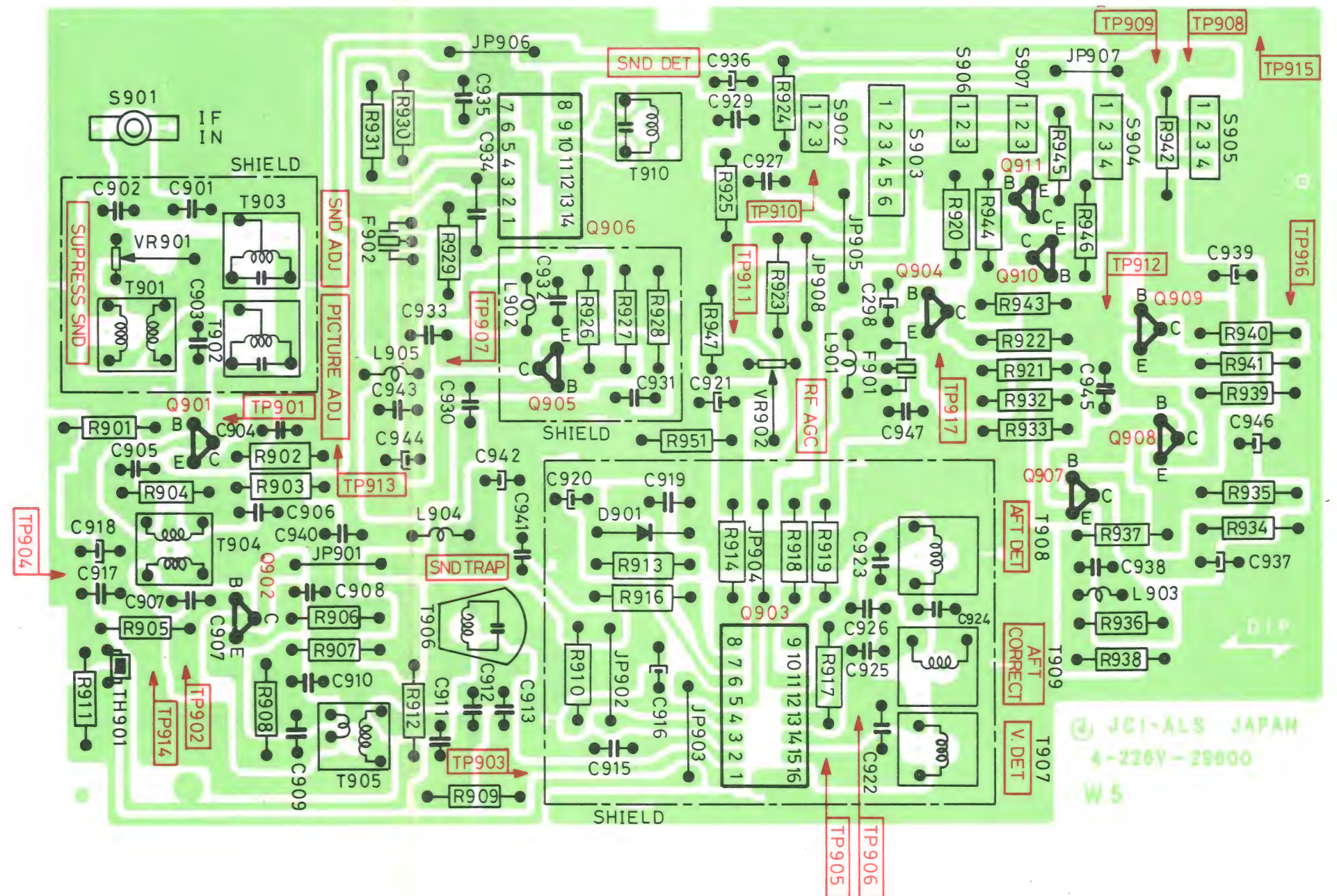
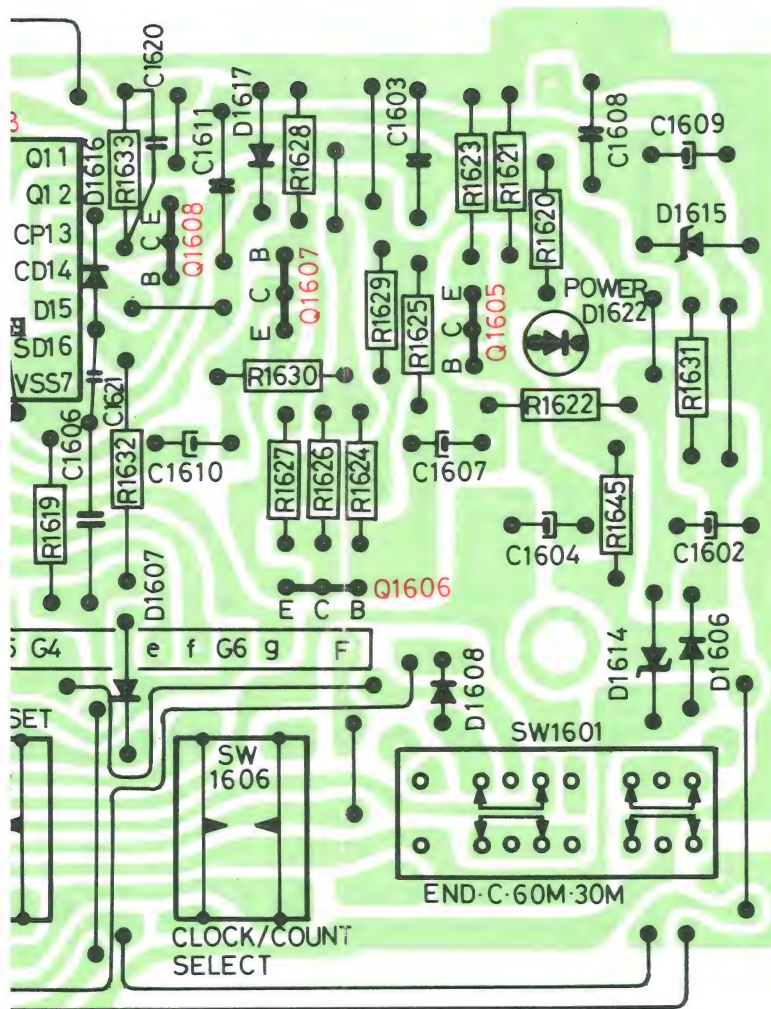


TP909 TP908





## W5 CIRCUIT BOARD

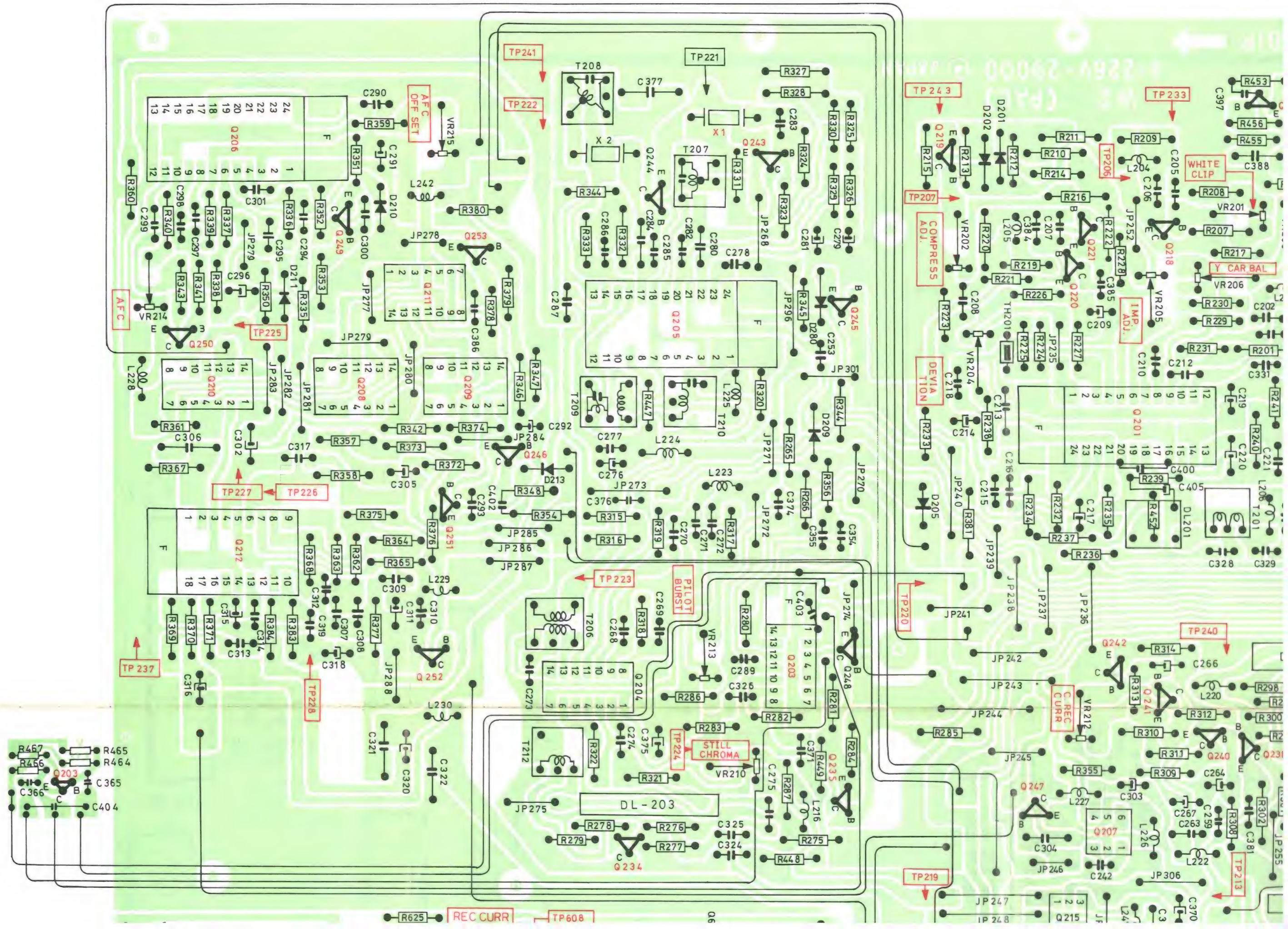




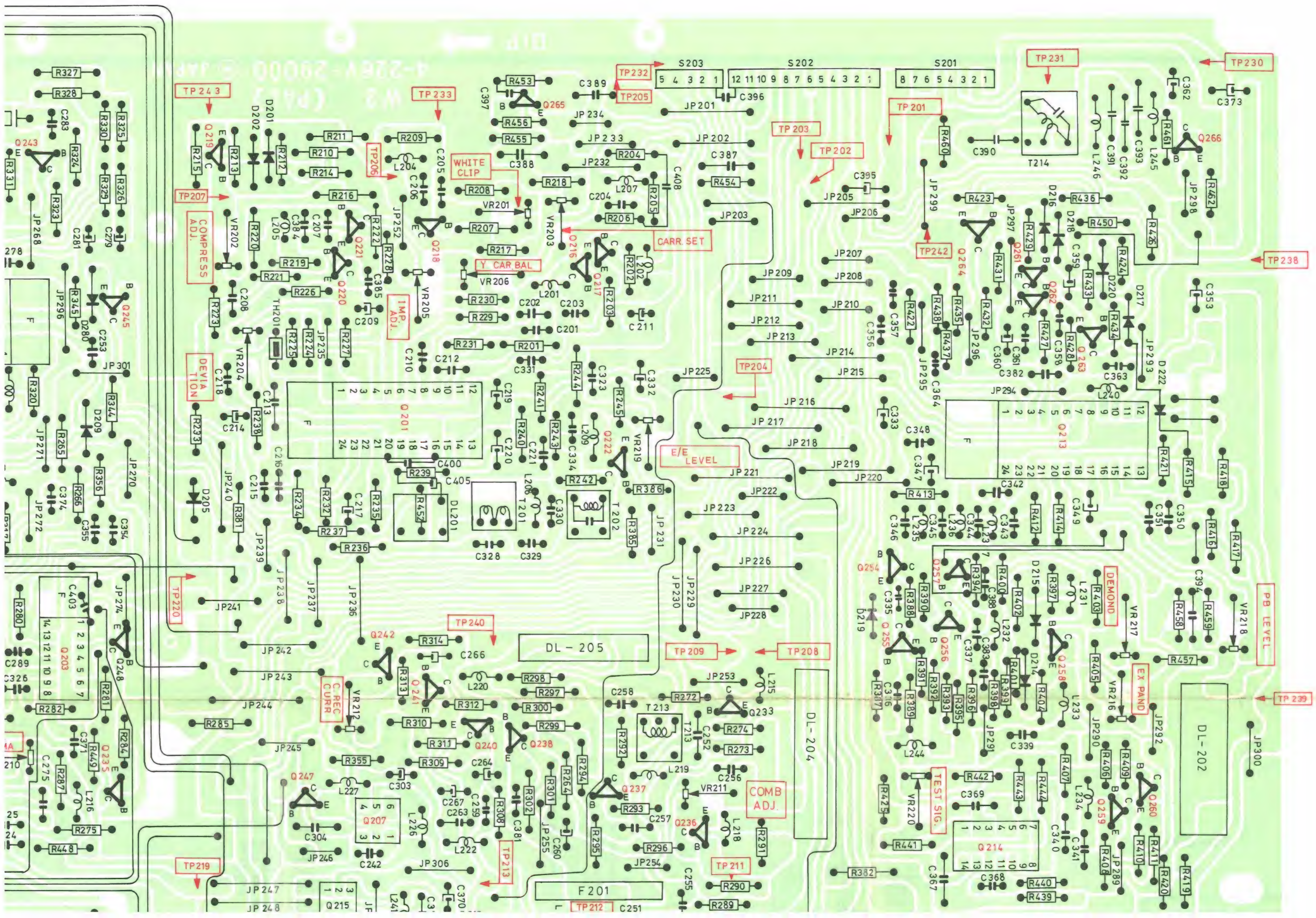




# W2 CIRCUIT BOARD



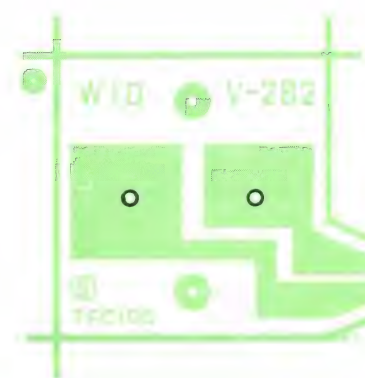
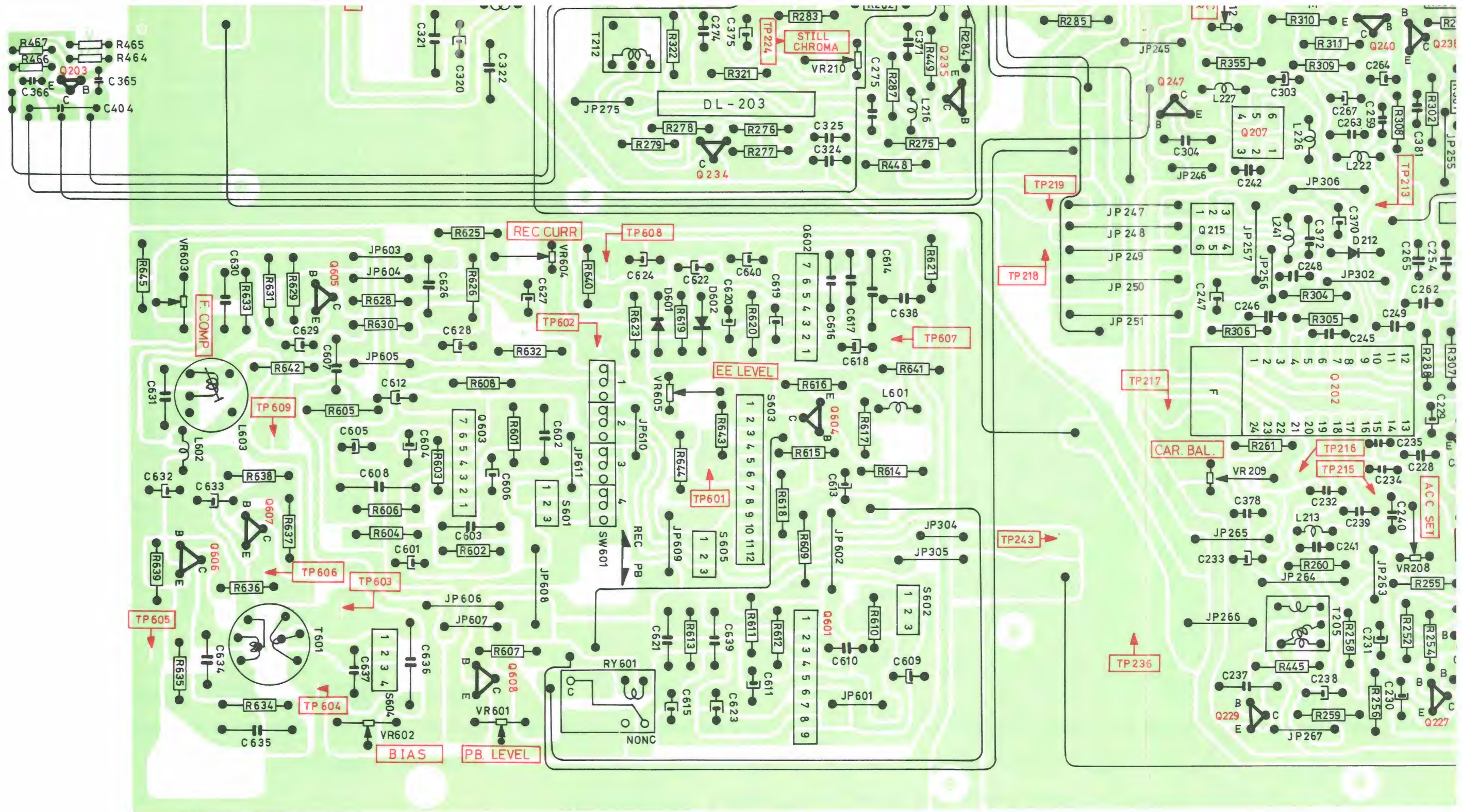










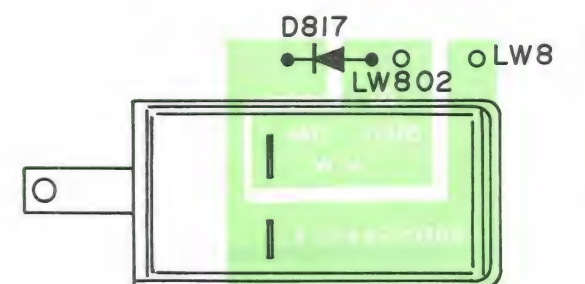


W10 CIRCUIT BOARD(FOR FWD SENSOR)

FWD SENSOR

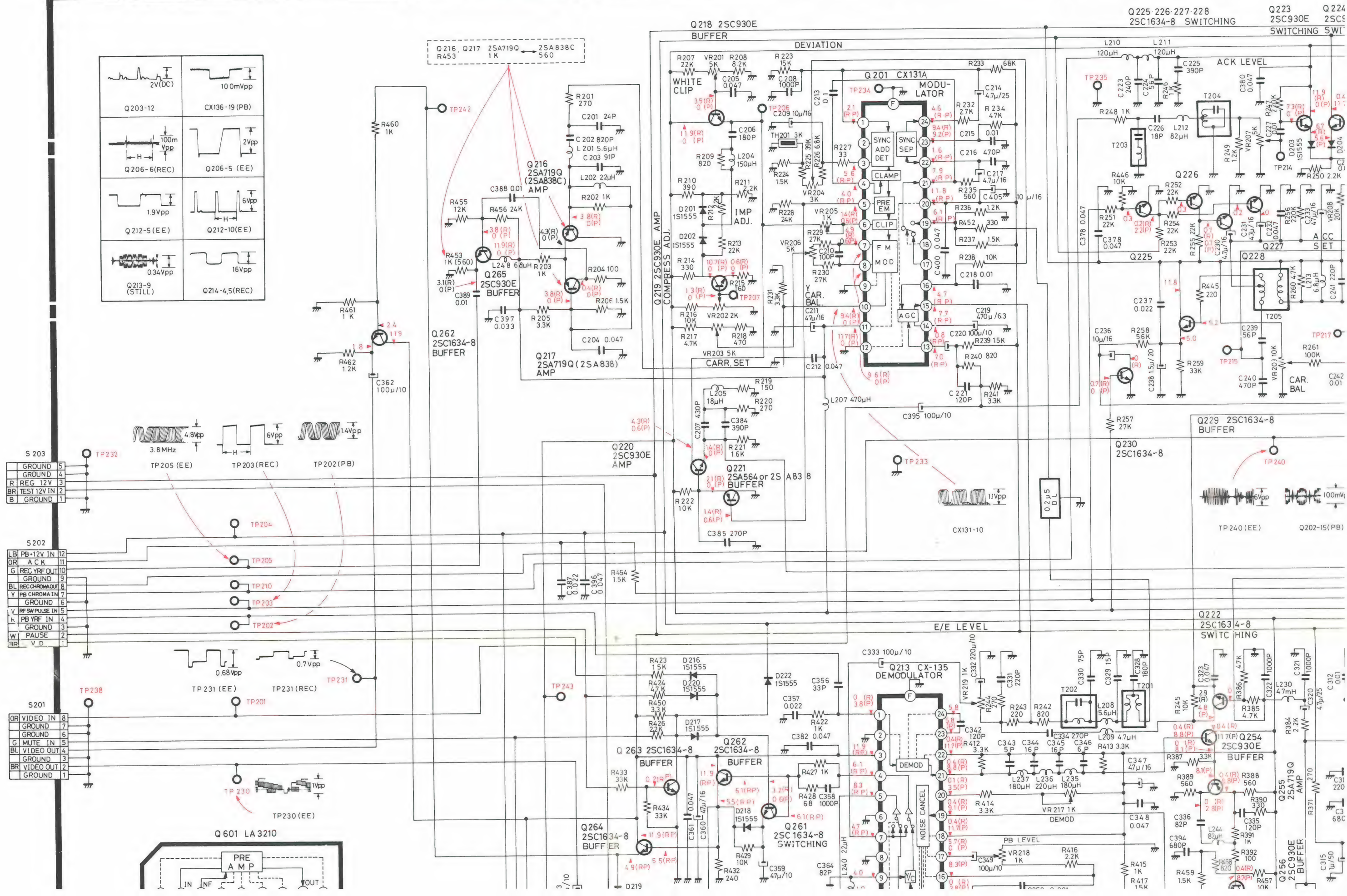


W24 CIRCUIT BOARD





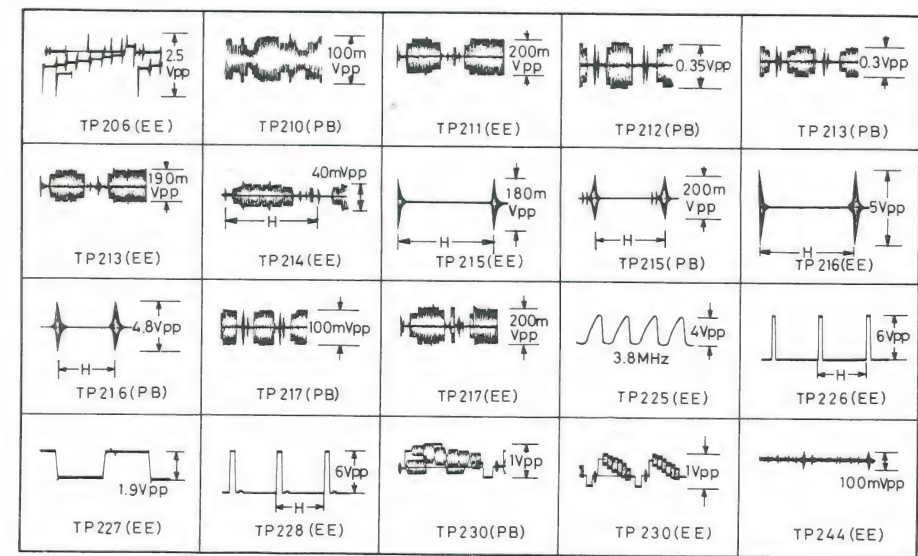
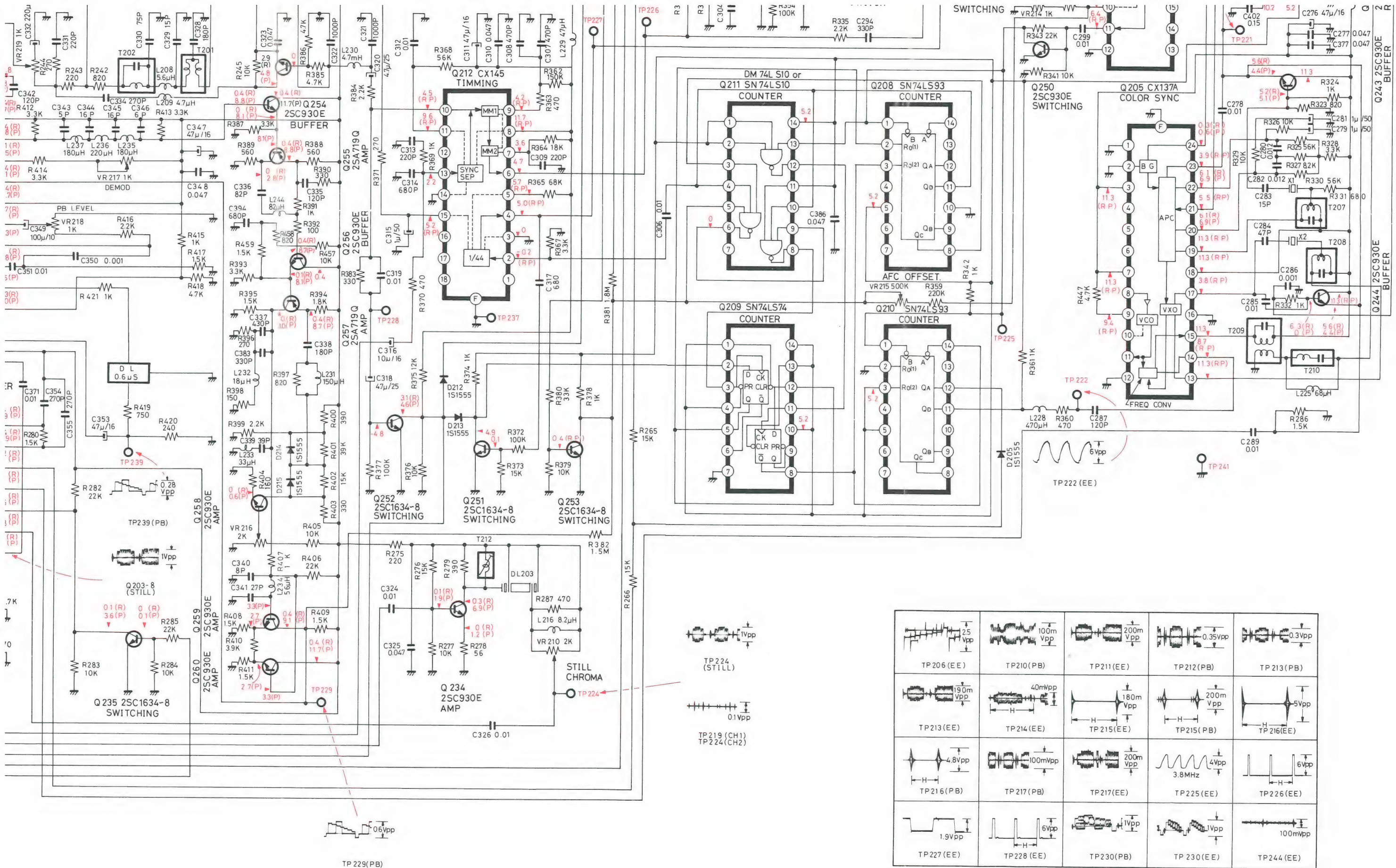
# SCHEMATIC DIAGRAM V VIDEO & SOUND CIRCUITS



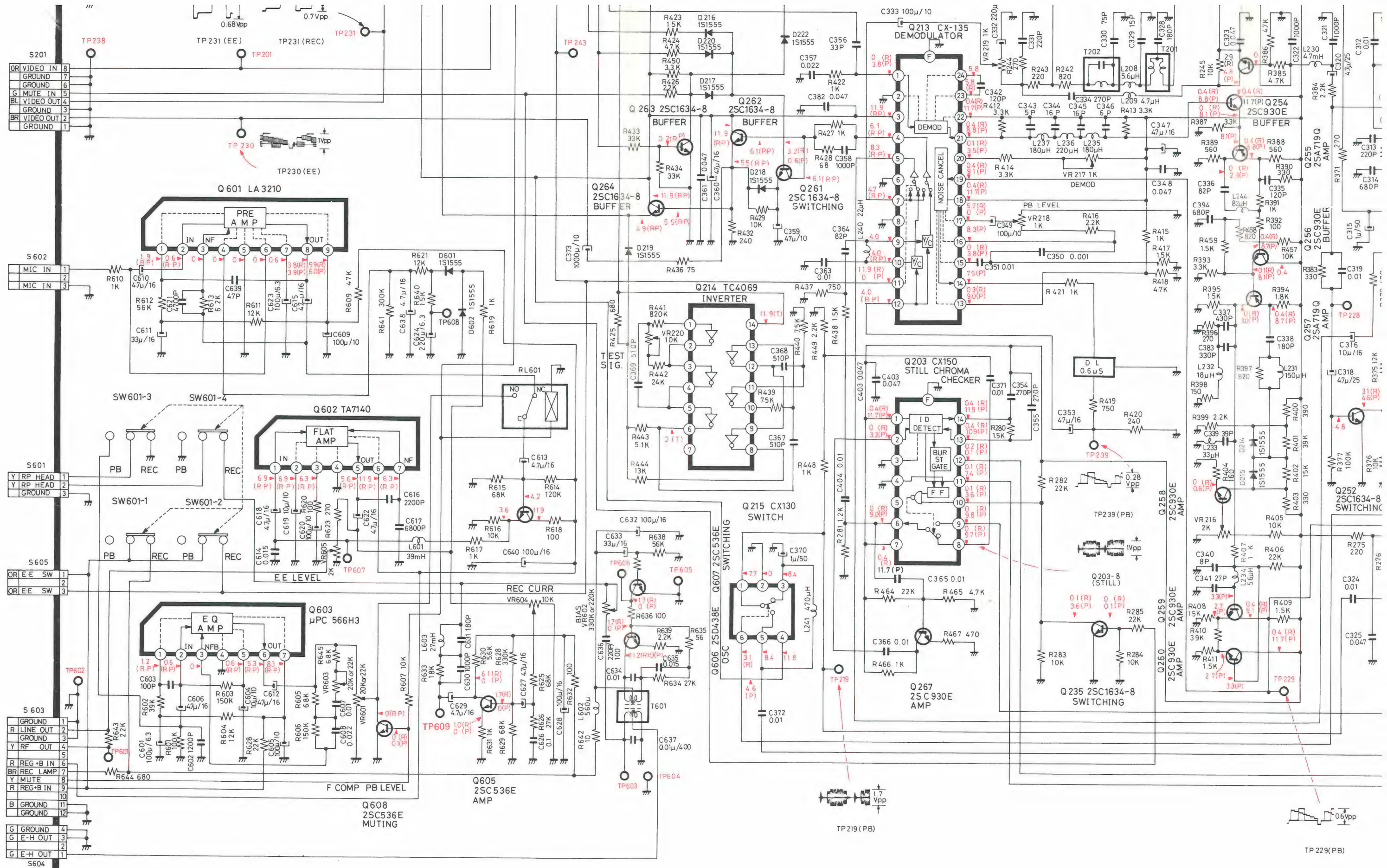


## I V VIDEO & SOUND CIRCITS (ON W2 CIRCUIT BOARD)





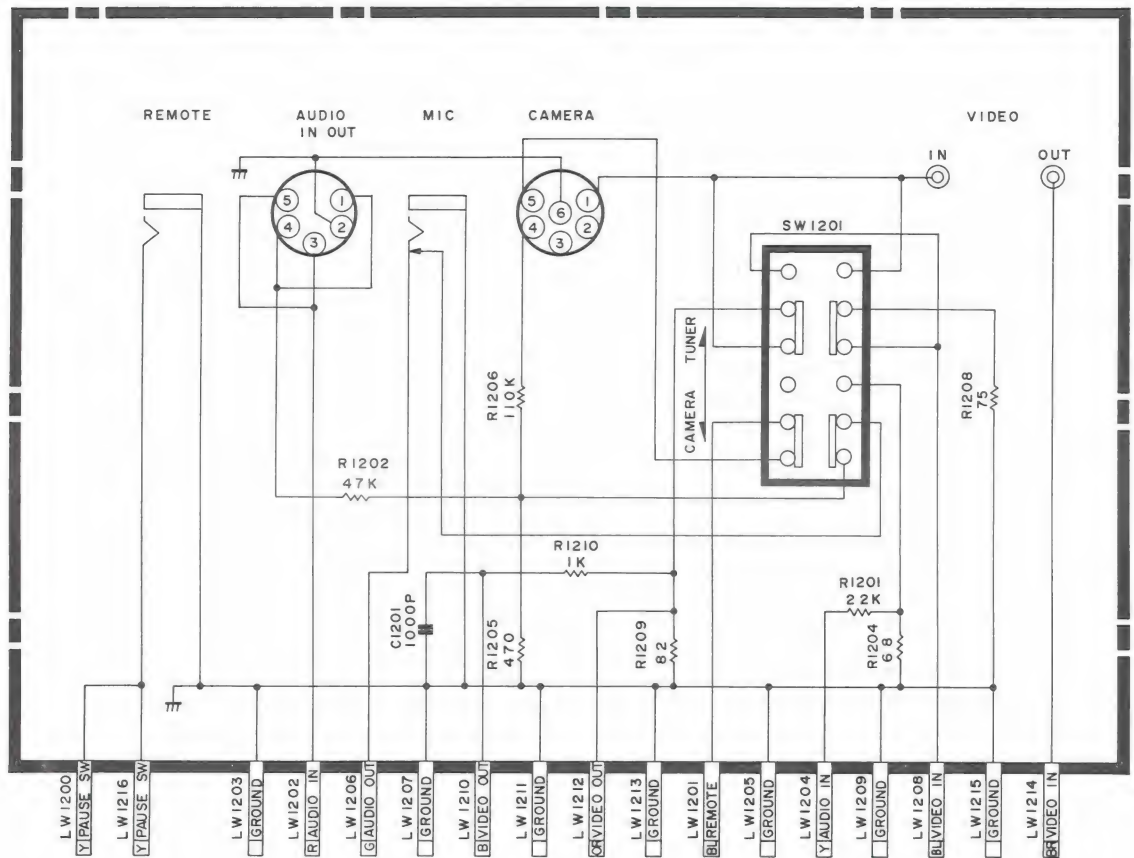




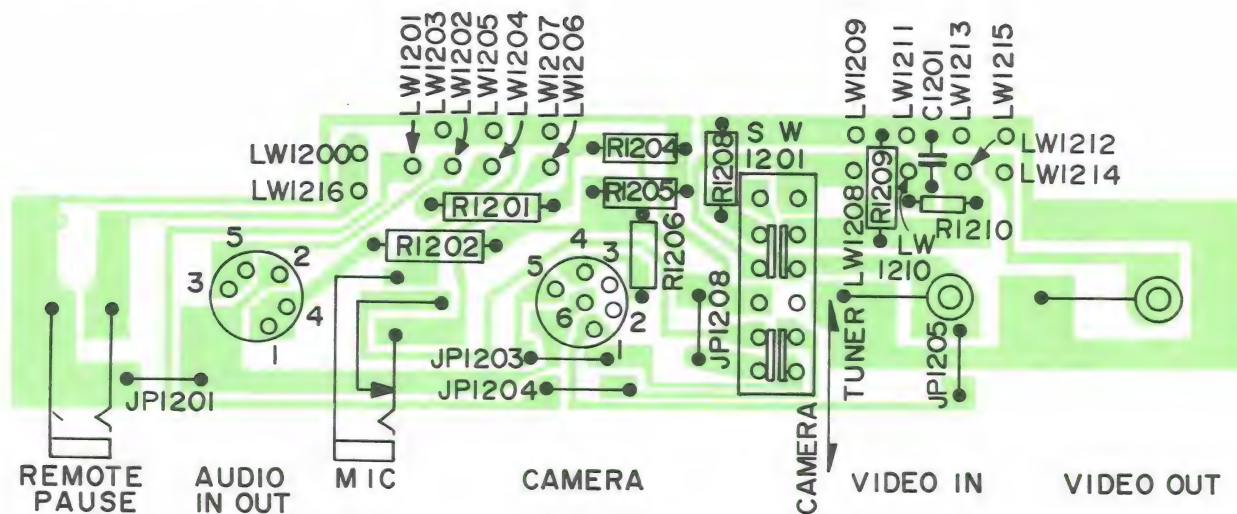


## SCHEMATIC DIAGRAM VII

### INPUT SELECTOR CONNECTION (ON W8 CIRCUIT BOARD)



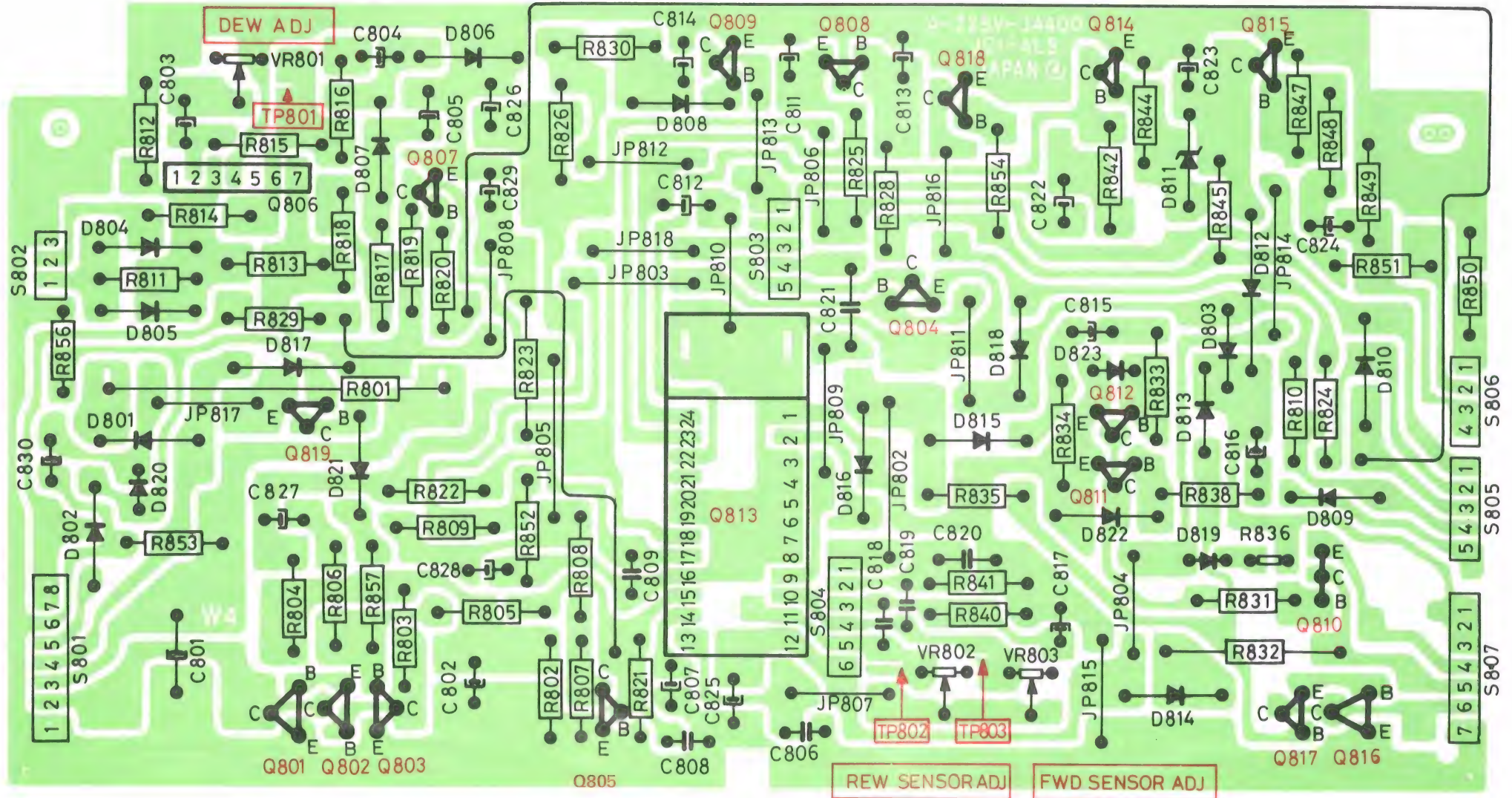
### W8 CIRCUIT BOARD



W13 CIRCUIT BOARD



# W4 CIRCUIT BOARD

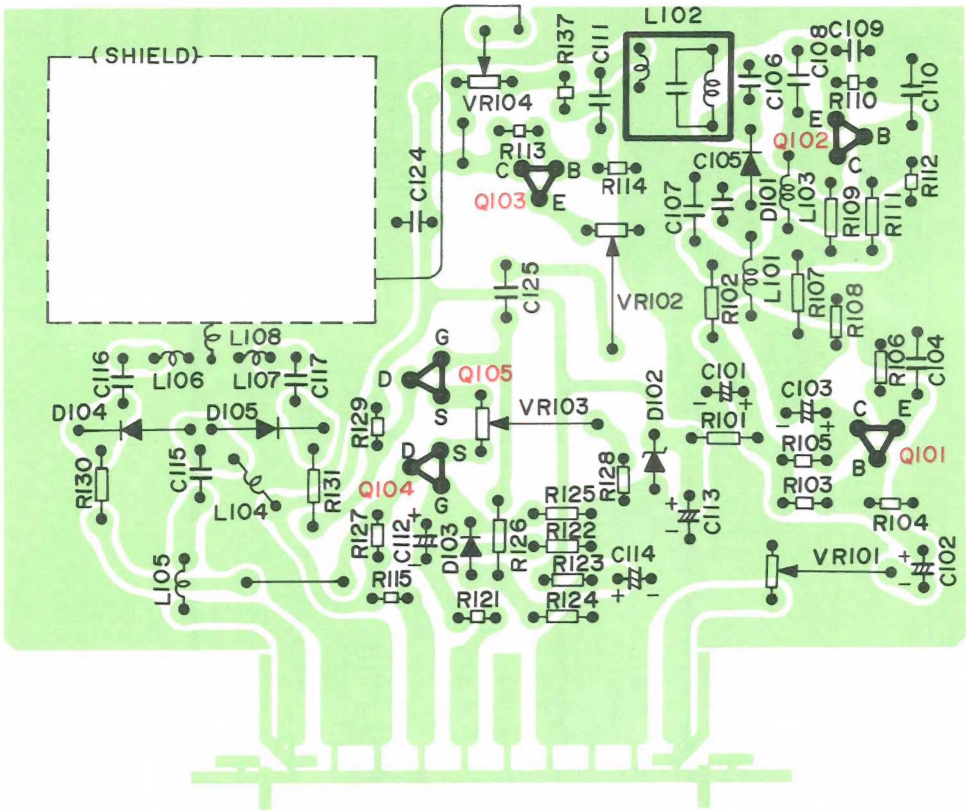




### SYSTEM CONTROL CIRCUITRY (ON W4 CIRCUIT BOARD)



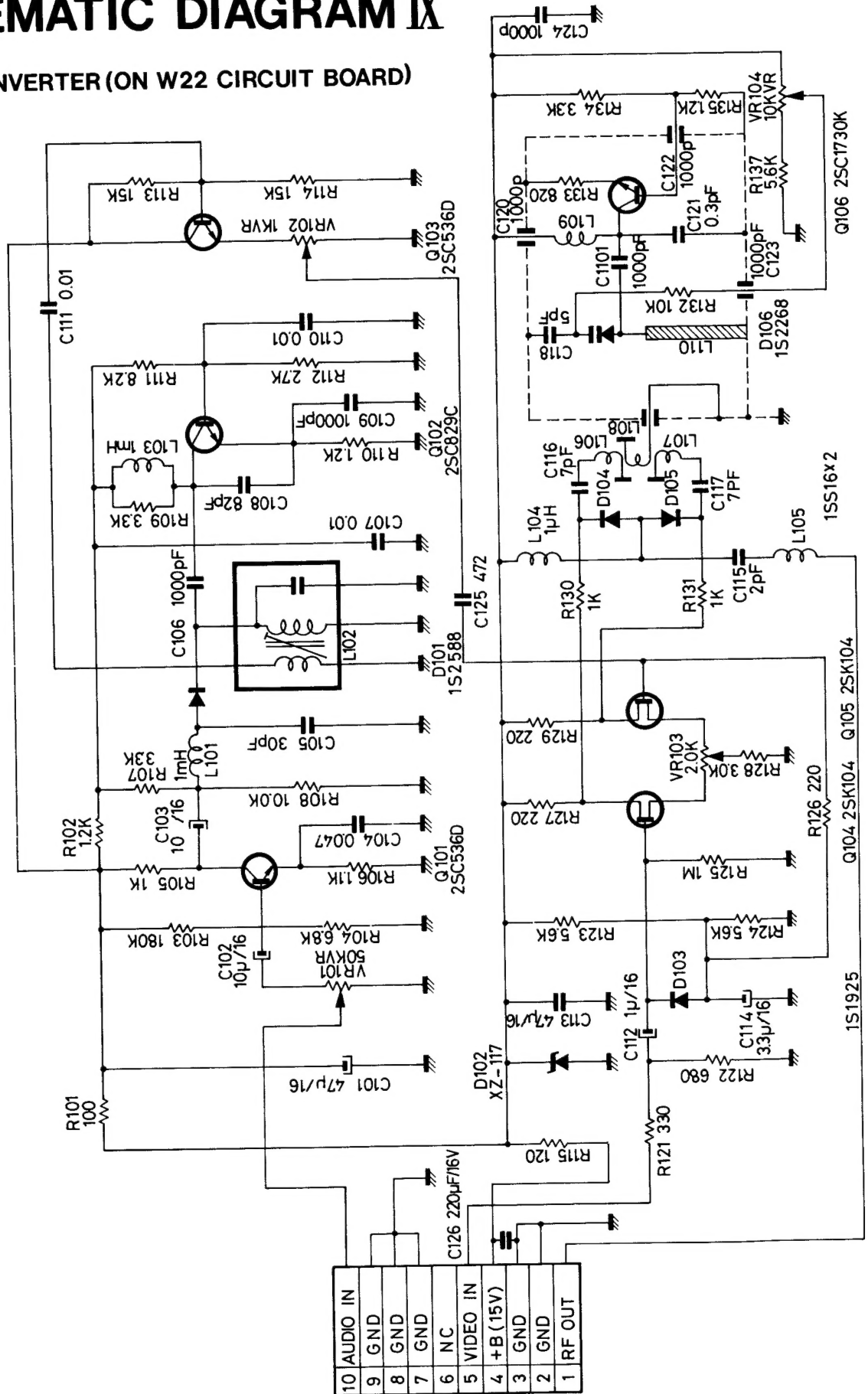
W22 CIRCUIT BOARD



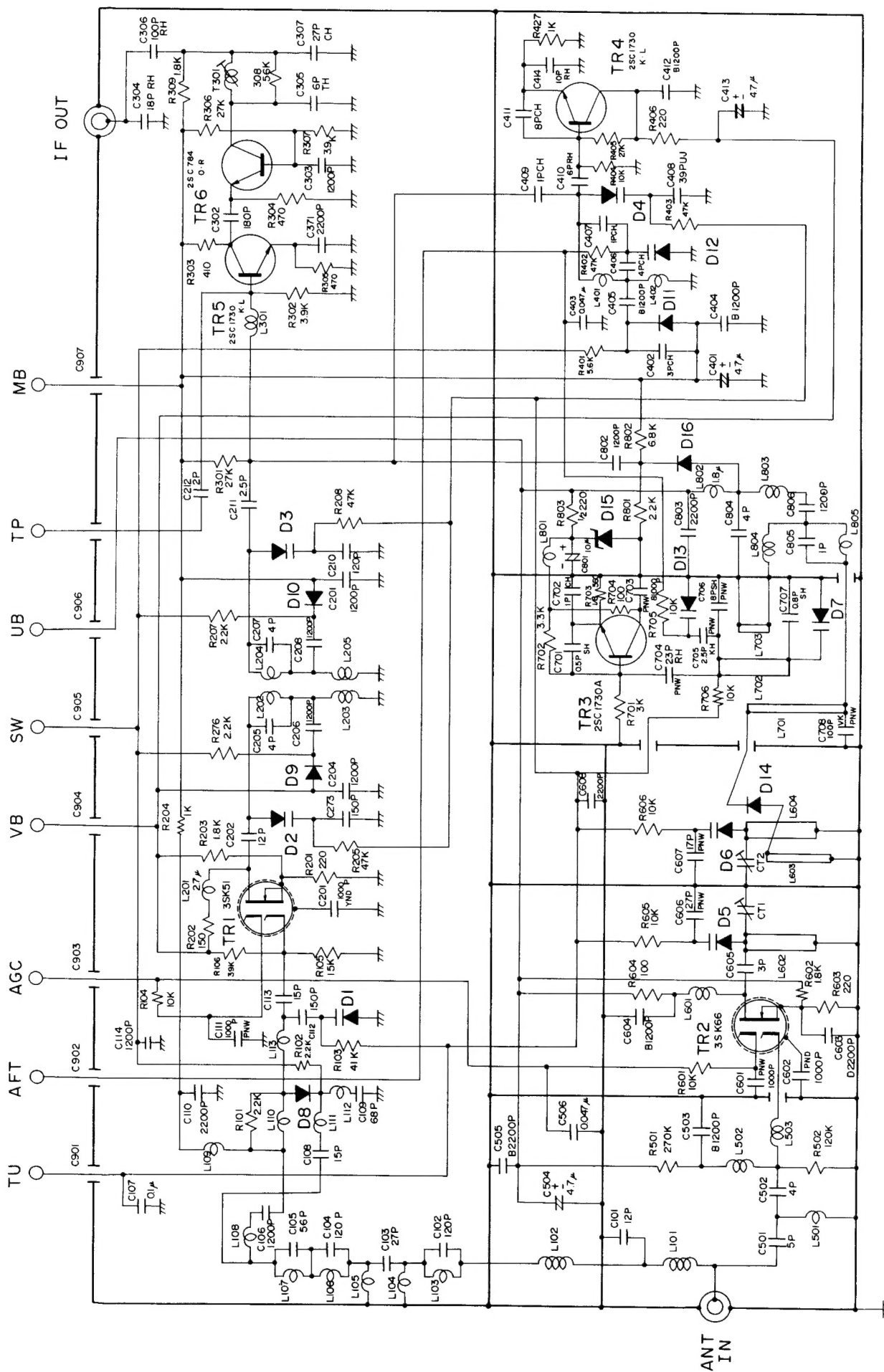
# SCHEMATIC DIAGRAM IX

RF CONVERTER (ON W22 CIRCUIT BOARD)

SCHEMATIC DIAGRAM XI (FOR RF CONVERTER ON W22 CIRCUIT BOARD)



# SCHEMATIC DIAGRAM X TUNER (#4-115V-12000)



- D1, D2, D3, D4, IS 2208, ISV59, MA 320, SVC - 112
- D5, D6, D7, IS 2208, ISV59, MA 320, SVC - 112
- D8, D9, D10, D11, IS 2222, IS 2692,
- D12, D13, IS 2268
- D14, ISS16, ISS90
- D15, RD10E, HZ10
- D16, IS1555



**NOTE:**

1. All resistance values in "OHMS" unless otherwise noted. (K = 1,000, M = 1,000,000)
2. All capacitance values in "mfd" unless otherwise noted. (P = micro-micro farad)
3. All inductance values in "mH" unless otherwise noted. ( $\mu$  = micro henry)
4. Testers used for voltage measurement should have the following impedance.

Digital multimeter: More than 10M $\Omega$

Multimeter: More than 5,000 $\Omega$ /1V DC

5. Remarks on voltage chart.

- \* All voltages are measured with digital multimeter.
- \* Voltages indicated in ( ) are measured with multimeter.
- \* If measurement values are same between digital multimeter and multimeter, values with digital multimeter are indicated.
- \* Marks indicated in [ ] respectively indicate the following modes;

**(W1) P.C.B. VIDEO RECORD/PLAYBACK & SERVO circuit**

**R:** RECORD mode

**P:** PLAY mode

**S:** STILL mode

**B/W:** BLACK & WHITE mode (otherwise, COLOR mode)

**(W2) P.C.B. -VIDEO Circuit-**

**R:** RECORD mode

**P:** PLAY mode

**T:** TEST SIGNAL Switch turned on

**B/W:** BLACK & WHITE mode (otherwise, STOP/COLOR mode)

**(W2) P.C.B. -AUDIO Circuit-**

**R:** RECORD mode (333Hz standard input)

**P:** PLAY mode (333Hz standard tape)

**S:** STOP mode

**\*:** Alternating Current

**(W3) P.C.B. DC POWER SUPPLY circuit**

**R:** RECORD mode

**P:** PLAY mode

**T:** TIMER on

**(W4) P.C.B. SYSTEM CONTROL circuit**

**P:** PLAY/RECORD mode

**F:** F. FWD mode

**R:** REW mode

**S:** STOP mode

**L:** LOADING mode

**E:** EJECT mode

**D:** DEW condensation mode **(W5) P.C.B. VIDEO/SOUND IF circuit, (W12) P.C.B. CHANNEL PRE-SET circuit**

**"ANT IN" Input:** Low channel signal at VHF (BAND I), 70dB $\mu$

- \* Voltage measurements on (W20) TIMER circuit board are made under the following condition:

**POWER Switch:** ON

**ALL Mode Switches:** OFF

**Time Display:** 12:00

**REC DAY Selector:** "1"

**REC TIME Selector:** "END"

AC values in root-mean-square.

6. Marks indicated in each connector indicate the following color of wire.

**B:** Black

**GR:** Gray

**R:** Red

**BL:** Blue

**LB:** Light Blue

**V:** Violet

**BR:** Brown

**OR:** Orange

**W:** White

**G:** Green

**P:** Pink

**Y:** Yellow